SECTION 1 SUMMARY KEY TO ABBREVIATIONS

A	AC	:Alternating Current
	ACC	:Automatic Color Control
	ACSS	:Automatic Channel Setting System
	ADJ	:Adjust
	A/E	:Audio Erase
	AFC	:Automatic Frequency Control
	AFT	:Automatic Fine Tuning
	AGC	:Automatic Gain Control
	A.H.SW	:Audio Head Switch
	ALC	:Automatic Level Control
	AM	:Amplitude Modulation
	AMP	:Amplifier
	ANT	:Antenna
	APC	:Automatic Phase Control
	ASS'Y	:Assembly
	AUX	:Auxiliary
B	B	:Base
	BGP	:Burst Gate Pulse
	BPF	:Bandpass Filter
	BS	:Brodcasting Satellite
	BW or B/W	:Black and White
C	C	:Capacitor, Chroma, Collector
	CAN	:Cancel
	CAP	:Capstan
	CAP.BRK	:Capstan Brake
	CAP.RVS	:Capstan Reverse
	CATV	:Cable Television
	CBA	:Circuit Board Assembly
	CCD	:Charge Coupled Device
	C.CTL	:Chro Control, Capstan Control
	CFG	:Capstan Frequency Generator
	CHROMA	:Chrominance
	CNR	:Chroma Noise Reduction
	COMB	:Combination
		Comb Filter
	COMP	:Comparator
		Composite
		Compensation
	CONV	:Converter
	C.ROT SW	:Color Rotary Switch
	CS	:Chip Select
	C.SYNC	:Composite Synchronization
	CTL DIV	:Control Divide
	CUR	:Current
	CYL	:Cylinder
D	D	:Drum, Digital, Diode, Drain
	D.ADJ	:Drum Adjust
	DC	:Direct Current
	D.CTL	:Drum Control
	DEMOD	:Demodulator
	DET	:Detect
	DEV	:Deviation
	DHP	:Double High Pass
	DIGITRON	:Digital Display Tube
	DL	:Delay Line
	DOC	:Drop Out Compensator
	DUB	:Dubbing
	D.V SYNC	:Dummy Vertical Synchronization
E	E	:Emitter
	EE	:Electric to Electric
	EMPH	:Emphasis
	ENA	:Enable
	ENV	:Envelope
	EP	:Extended Play
	EQ	:Equalizer
	EXP	:Expander
F	F	:Fuse
	FB	:Feed Back
	FBC	:Feed Back Clamp
	FE	:Full Erase
	FG	:Frequency Generator
	FL	:Filter
	FM	:Frequency Modulation
	F/R	:Forward/Reverse
	FS	:Frequency Synthesizer
	FSC	:Subcarrier Frequency
	F/V	:Frequency Voltage
G	GEN	:Generator
H	H	:High, Horizontal
I	IC	:Intergrated Circuit
	IF	:Intermediate Frequency
	INS	:Insert
L	L	:Low, Left, Coil
	LD	:Loading
	LD VTG CTL	:Loading Voltage Control
	LECHA	:Letter Character
	L.M	:Level Meter
	LP	:Long Play
	LPF	:Low Pass Filter
M	MAX	:Maximum
	MD	:Modulator
	MECHA.CTL	:Mechanism Control
	MIC	:Microphone
	MIN	:Minimum
	MIX	:Mixer, Mixing
	M.M.	:Mono Multi Vibrator
	MMV	:Monostable Multivibrator
	MOD	:Modulation, Modulator
	MODEN	:Modulation-Demodulator
	MPX	:Multiplex
N	NR	:Noise Reduction
O	OSC	:Oscillator
	OSD	:On Screen Display
P	PB	:Playback
	PCB	:Printed Circuit Board
	P.CTL	:Power Control
	PER-AMP	:Preamplifier
	P.F	:Power Failure
	PG	:Pulse Generator
	PLL	:Phase Locked Loop
	PREM.DET	:Premire Detect
	P-P	:Peak to Peak
	PS	:Phase Shift
	PWM	:Pulse Width Modulation
	PWR CTL	:Power Control
Q	Q	:Transistor
	QH	:Quasi Horizontal
	QSR	:Quick Set Record
	QTR	:Quick Timer Record
	QV	:Quasi Vertical
R	R	:Resistor, Right
	RE(or RC)	:Remocon, Receiver
	REC	:Recording
	REC S.'H'	:Record Start 'Hight'
	REF	:Reference
	REG	:Regulated, Regulator
	REMOCON	:Remote Control(unit)
	RF	:Radio Frequency
	R/P	:Record/Playback
	RTC	:Reel Time Counter
S	S	:Serial
	S.ACCEL	:Slow Accel
	SAOP	:Second Audio Program
	SC	:Scart, Simulcast
	S.DET	:Secam Detect
	SH	:Shift
	SHARP	:Sharpness
	SIF	:Sound Intermediate Frequency
	SLD	:Side Locking
	S/N	:Signal to Noise Ratio
	SP	:Standard Play
	ST	:Stereo
	SUB	:Subtract, Subcarrier
	SW or S/W	:Switch
	SYNC	:Synchronization
	SYSCON	:System Control
T	T	:Coil
	TP	:Test Point
	TR	:Transistor
	TRK	:Tracking
	TRANS	:Transformer
	TU	:Tuner, Take-Up
U	UHF	:Ultra Hight Frequency
	UNREG	:Unregulated
V	V	:Volte, Vertical, Video
	VA	:Voltage Alive
	VCO	:Voltage Controlled Oscillator
	VGC	:Voltage Gain Control
	VHF	:Very High Frequency
	V.H.SW	:Video Head Switch
	VISS	:VHS Index Search System
	VPS	:Video Program System
	VR	:Variable Resistor or Volume
	V-SYNC	:Vertical Synchronization
	VTG	:Voltage
	VV	:Video to Video
	VXO	:Voltage X-tal Oscillator
W	W	:Watt
	WHT	:White
	W/O	:With Out
X	X-TAL	:Crystal
Y	Y/C	:Luminance/Chrominance
	YNR	:Luminance Noise Reduction
Z	ZD	:Zener Diode

IMPORTANT SAFETY PRECAUTIONS

Prior to shipment from the factory, the products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

• Precautions during Servicing

1. Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

2. Parts identified by the ⚠ symbol and shaded (▒) parts are critical for safety.
   Replace only with specified part numbers.
   Note: Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

3. Use Specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads

4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers
   4) Insulation sheets for transistor

5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.(Fig. 1)

6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

7. Check that replaced wires do not contact sharp edged or pointed parts.

8. When a power cord has been replaced, check that 10-15Kg of force in any direction will not loosen it.(Fig. 2)

9. Also check areas surrounding repaired locations.

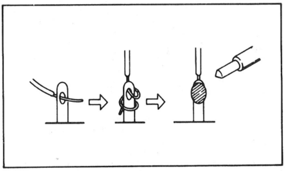


Fig. 1

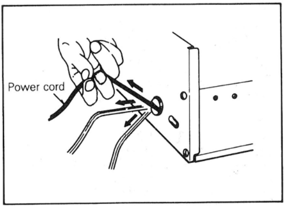


Fig. 2

10. Products using cathode ray tubes (CRTs)
    In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the parts specified. Under no circumstances attempt to modify these circuits. Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

SAFETY CHECK AFTER SERVICING

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions. Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

• Insulation resistance test

Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table below.

• Dielectric strength test

Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set(RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table below.

• Clearance distance

When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See table below.

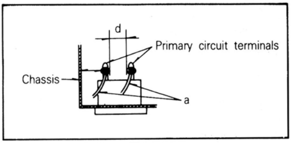


Fig. 3

Table 1:Ratings for selected areas

AC Line Voltage	Region	Insulation Resistance	Dielectric Strength	Clearance Distance(d),(d)
*110 to 130 V 200 to 240 V	Europe Australia	≧10 MΩ/500 V DC	4kV 1 minute	≧6mm(d) ≧8mm(d) (a Power cord)

*Class II model only.

Note. This table is unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

• Leakage Current test

Confirm specified or lower leakage current between B(earth ground, power cord plug prongs) and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.)

Measuring Method: (Power ON)
Insert load Z between B(earth ground, power cord plug prongs) and exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See figure and following table.

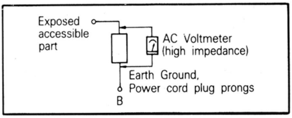

Exposed accessible part
AC Voltmeter (high impedance)
Earth Ground, Power cord plug prongs
B

Fig. 4

Table 2:Leakage current ratings for selected areas

AC Line Voltage	Region	Load Z	Leakage Current(i)	Earth Ground (B) to:
100 to 130 V	Europe	2kΩ	i≦0.7m A peak i≦2m A dc	Antenna earth terminals
200 to 240 V	Australia	50kΩ	i≦0.7m A peak i≦2m A dc	Other terminals

Note. This table is unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

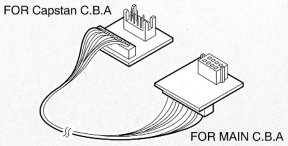
SECTION 2 CABINET & MAIN FRAME

SERVICE METHOD

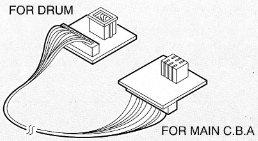
1. Electrical Service Fixture List

The Fixture uses in Deck Ass'y Checking.

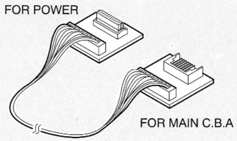
1) Fixture Cable ① (Fix.1)
Parts No: 6871R-0288A (Optional Parts)


FOR Capstan C.B.A
FOR MAIN C.B.A

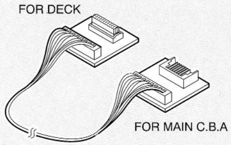
2) Fixture Cable ② (Fix.2)
Parts No: 6871R-0288B (Optional Parts)


FOR DRUM
FOR MAIN C.B.A

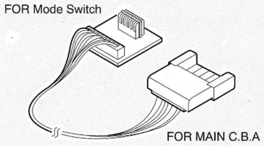
3) Fixture Cable ③ (Fix.3)
Parts No: 6871R-0288C (Optional Parts)


FOR POWER
FOR MAIN C.B.A

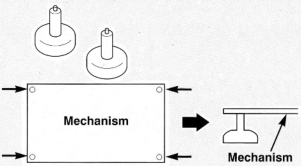
4) Fixture Cable ④ (Fix.4)
Parts No: 6871R-0288D (Optional Parts)


FOR DECK
FOR MAIN C.B.A

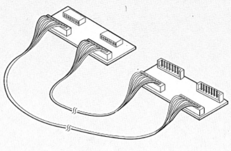
5) Fixture Cable ⑤ (Fix.5)
Parts No: 6871R-0288E (Optional Parts)


FOR Mode Switch
FOR MAIN C.B.A

6) Fixture Cable ⑥ (Fix.6)
Parts No: 322-065A (Optional Parts)


Mechanism
Mechanism

7) Fixture Cable ⑦ (Fix.7)
Parts No: 6871R-0288J (Optional Parts)



SERVICE METHOD

2. SERVICE FIXTURE CONNECTING METHOD

1) Check And Replace of The Electrical Parts

▶ Disassembly Flow

① Top Case ▷ ② Front Panel ▷ ③ Timer C.B.A ▷ ④ Housing & Deck Ass'y ▷ ⑤ Power Ass'y ▷ ⑥ Main C.B.A ▷

a. Refer to pages 2-4, 2-5 for Disassembling.
b. Assemble inversely like figure 2-2 and check the electrical Parts.

★ Notes in Check

ⓐ Insert Video Cassette Tape inversely.

ⓑ In disassembling and assembling, be careful not to be damaged CST Switch.

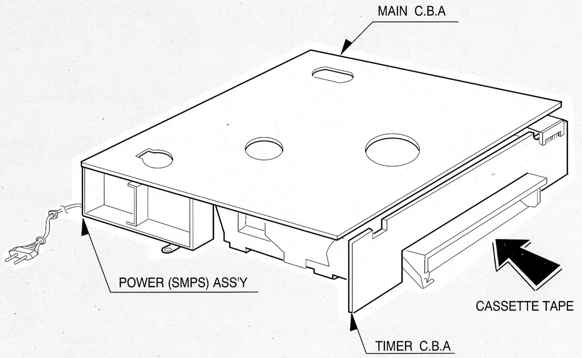


Fig. 2-2

SERVICE METHOD

2) Check and Replace of The Deck Ass'y

▶ Disassembly Flow

① Top Case ▷ ② Front Panel ▷ ③ Timer C.B.A ▷ ④ Housing & Deck Ass'y ▷ ⑤ Power Ass'y ▷ ⑥ Main C.B.A ▷

a. Refer to pages 2-4, 2-5 for Disassembling.

b. Assemble like figure 2-3 and connect with fixture 6EA.

★ Notes in Check

ⓐ Short W323 and W278 of Main C.B.A so that the End sensor (Supply sensor, Take up sensor) and supply Reel Sensor, Take up Reel Sensor are not operating.

ⓑ Insert Video Cassette Tape while pushing CST switch.

ⓒ After Eject the cassette, you must push CST switch immediately.

ⓓ In disassembling and assembling, be careful not to be damaged CST Switch.

ⓔ In reassembling, you must open W323, W278.

ⓕ When Fix. ②, Fix. ③, Fix. ④ will be connect, connect the identification line with accord as like the Fig. 2-3.

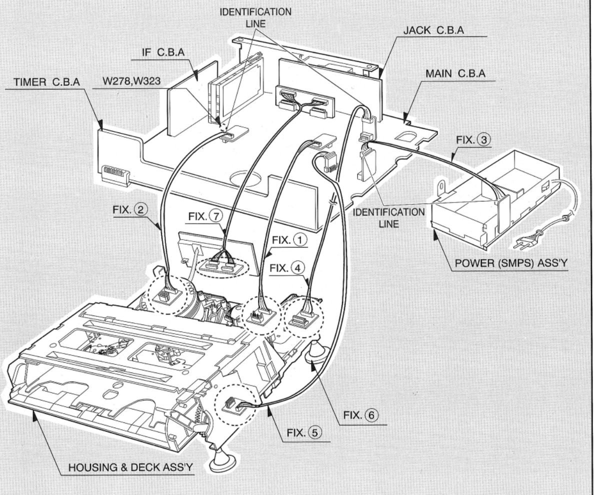
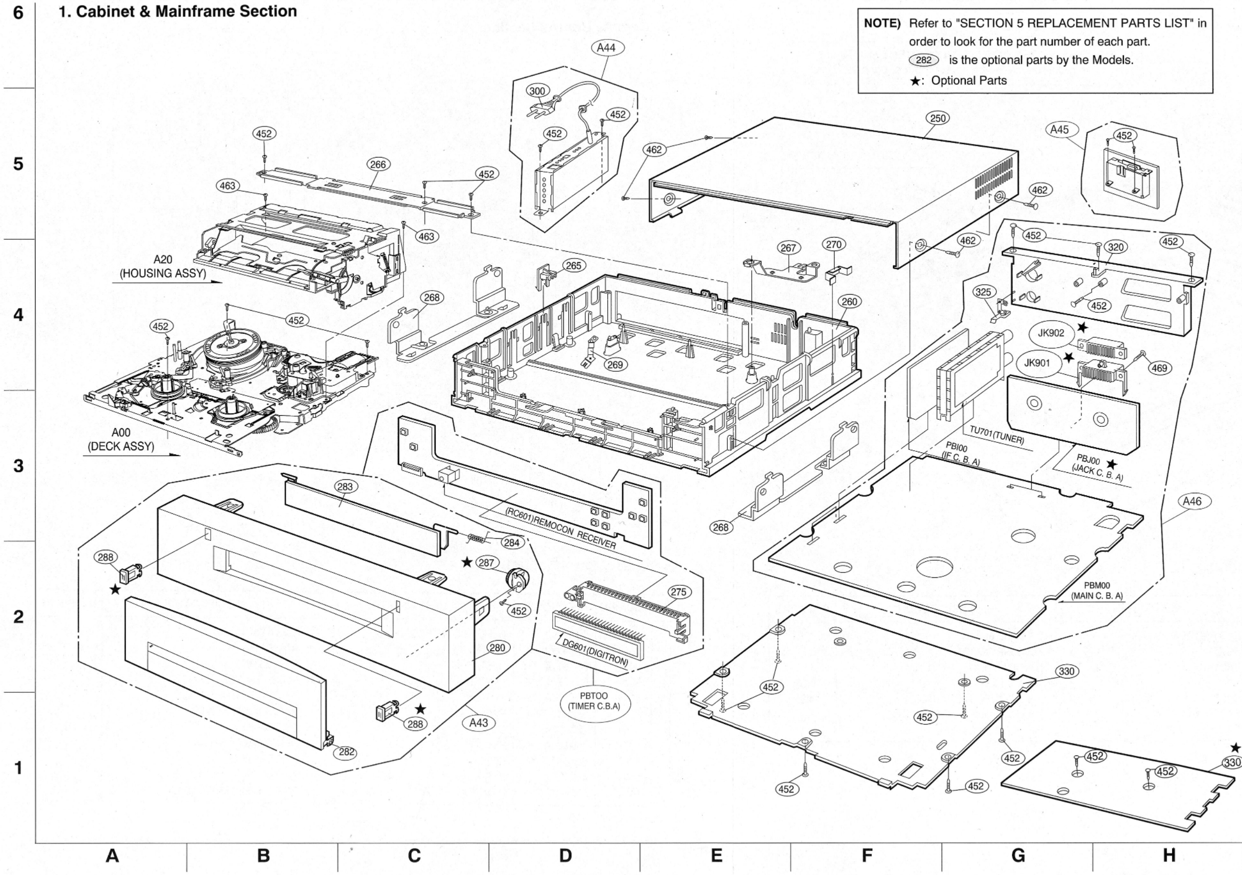

IDENTIFICATION LINE
JACK C.B.A
IF C.B.A
MAIN C.B.A
TIMER C.B.A
W278,W323
FIX. ③
FIX. ②
FIX. ⑦
IDENTIFICATION LINE
FIX. ①
FIX. ④
POWER (SMPS) ASS'Y
FIX. ⑥
FIX. ⑤
HOUSING & DECK ASS'Y

Fig. 2-3

EXPLODED VIEWS

1. Cabinet & Mainframe Section

NOTE) Refer to "SECTION 5 REPLACEMENT PARTS LIST" in order to look for the part number of each part.
(282) is the optional parts by the Models.
★: Optional Parts

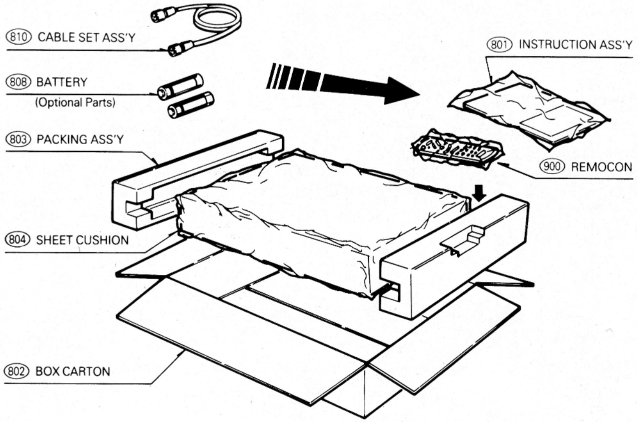

6
5
4
3
2
1
A
B
C
D
E
F
G
H
I
A44
300
452
462
250
A45
266
463
A20
(HOUSING ASSY)
265
267
270
462
320
325
260
268
269
JK902
JK901
469
A00
(DECK ASSY)
TU701(TUNER)
PBI00
(IF C. B. A)
PBJ00
(JACK C. B. A)
283
(RC601)REMOCON RECEIVER
284
287
288
275
A46
DG601(DIGITRON)
PBM00
(MAIN C. B. A)
280
PBTOO
(TIMER C.B.A)
A43
282
330

LOCATION GUIDE

A 00	A 3
A 20	A 4
A 43	C 1
A 44	D 5
A 45	G 5
A 46	H 3
PBT 00	D 1
PBI 00	G 3
PBJ 00	G 3
PBM 00	G 2
RC 601	D 2
TU 701	G 3
JK 901	G 3
JK 902	G 4
250	F 5
260	F 4
265	D 4
266	C 5
267	E 4
268	C 4
269	D 4
275	E 2
280	C 2
282	B 1
283	B 3
284	D 2
287	C 2
288	C 1
300	D 5
320	H 4
325	G 4
330	G 2

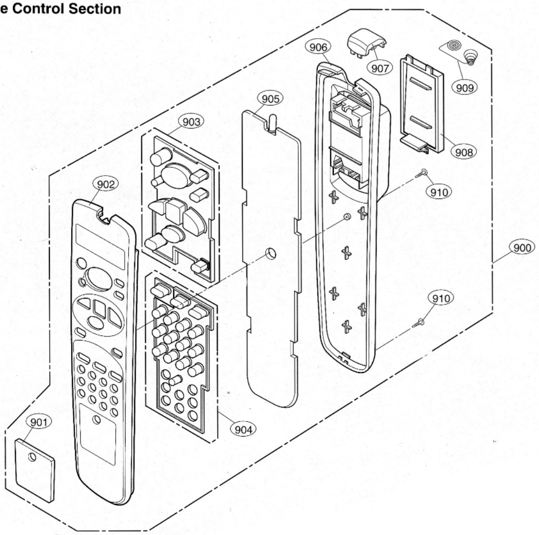
2. Packing & Accessory Section

NOTE) Refer to "SECTION 5 REPLACEMENT PARTS LIST" in order to look for the part number of each part.



810 CABLE SET ASS'Y
801 INSTRUCTION ASS'Y
808 BATTERY
(Optional Parts)
803 PACKING ASS'Y
900 REMOCON
804 SHEET CUSHION
802 BOX CARTON

3. Remote Control Section



906
907
909
905
903
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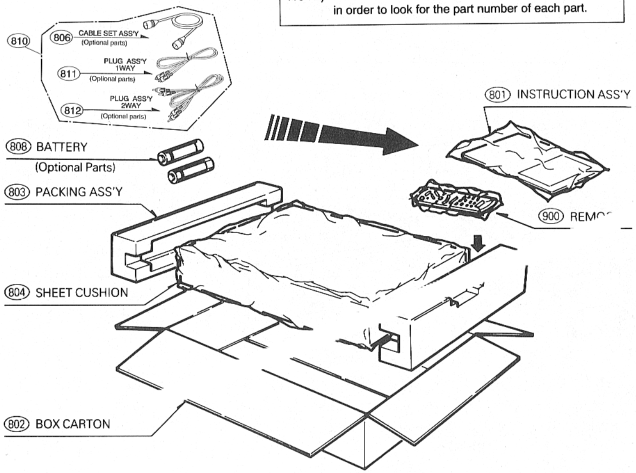
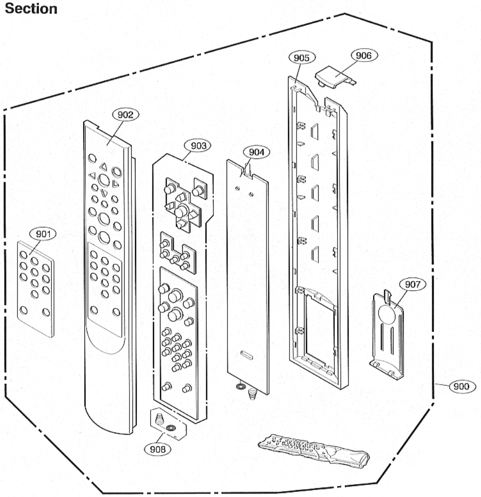
910
901
904

2. Packing & Accessory Section

NOTE) Refer to "SECTION 5 REPLACEMENT PARTS LIST" in order to look for the part number of each part.


810
806 CABLE SET ASS'Y
(Optional parts)
PLUG ASS'Y
1WAY
811
(Optional parts)
PLUG ASS'Y
2WAY
812
(Optional parts)
801 INSTRUCTION ASS'Y
808 BATTERY
(Optional Parts)
803 PACKING ASS'Y
900 REMO
804 SHEET CUSHION
802 BOX CARTON

3. Remote Control Section


905
906
902
903
904
901
907
900
908

SECTION 3 ELECTRICAL

ELECTRICAL ADJUSTMENT PROCEDURES

Electronic Test Equipment

- Oscilloscope
- Video Signal Generator
- Level Meter
- + Driver
- Test Tape (SP)
- Recording Tape
- Digital Multimeter
- Monitor Scope
- Power Supply

ABBREVIATIONS

- SPEC: Specification
- M.P: Measurement Point
- A.P: Adjustment Point

1. Servo Circuit

1) PG Adjustment

Purpose:

For the phase dividing of the Video A,B heads with 180° and the exact tracking of each track to meet head switching point with VHS Spec.

WAVEFORM

Composite Video Signal

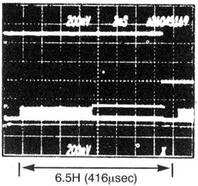


Fig. 3-1

1-1) Record PG Adjustment

- MODE: Record
- SPEC : 416±50µsec
- M.P : TP302 (H.SW)
  JK701 Pin① (Video Out)
- A.P : VR502

1-2)Playback PG Adjustment

- MODE: Playback
- SPEC : 6.5H±0.5H
  (416µsec, 1H=64µsec)
- M.P : TP302 (H.SW)
  JK701 pin① (Video Out)
- A.P : VR501

1-1) Record PG Adjustment

Procedure:

a. Set the VCR to A/V mode.
b. Connect CH-1 terminal of oscilloscope to TP302 (H.SW) and CH-2 terminal to video out terminal (JK701 pin①) of VCR.
c. Input the Video signal to Video Input Jack.
d. Record in PAL SP mode.
e. Trigger the complex Video signal of CH2 to CH-1 (H.SW), and adjust VR502 so that the distance from A(B) head selection point of H.SW signal to the starting point of Vertical synchronized signal is 416±50µsec.

Reference:

1. Record PG Adjustment is proceed in the Record mode and must be input video signal.
2. The deviation between A/B Head Adjustment location should be within ±0.5H (32µsec).
3. The deviation between the specification of adjustment and the practical measurement value should be within ±50µsec.
4. Oscilloscope and VCR set should be connected with GND.
5. When the Power Ass'y of set is changed, you should be readjust Record PG.

1-2) Playback PG Adjustment

Procedure:

a. Playback a PAL SP test tape.
b. At this time, the "ATR" is lighting, after pressing the A.TR (+) or A.TR(-) and adjust the X-Value.
c. Connect CH-1 terminal of oscilloscope to TP302(H.SW) and CH-2 terminal to Video Out terminal (JK701 pin①) of VCR.
d. Trigger the complex Video signal of CH2 to CH-1(H.SW), and adjust VR501 so that the distance from A(B) head selection point of H.SW signal to the starting point of Vertical synchronized signal is 6.5H (416µsec, 1H= 64µsec).
e. The conversion of A/B Head SW signal uses the Polarity Invert Knob of oscilloscope.

Reference:

1. ±PG adjustment is proceed in the state of maximum RF level and locked servo system (MTR Mode).
2. The deviation between A/B Head Adjustment location should be within ±0.5H (32µsec).
3. The deviation between the specification of adjustment and the practical measurement value should be within ±0.5H (32µsec).
4. Oscilloscope and VCR set should be connected with GND.

ELECTRICAL ADJUSTMENT PROCEDURES

2. Audio Circuit

1) Record Bias Adjustment

- MODE : Record
- SPEC : 3.0mV±0.2mV RMS
- M.P : W105 (+)
  W106 (-)
- A.P : VR401

Purpose:

This is adjusting the bias current to specification in recording.

Procedure:

a. Connect (+) terminal of the Level Meter to W105 (+).
b. Connect (-) terminal of the Level Meter to W106 (-).
c. Confirm that the Oscillation Voltage is 3.0mV± 0.2mV RMS.
d. At this time, adjust VR401 and make the oscillation voltage fit to specification.

3. Tuner/IF Circuit

1) VCO (Voltage Controlled Oscillation) Adjustment

- MODE : PAL I (38.9MHz)
- SPEC : DC 2.5±0.1V
- M.P : P7M02 pin⑤ (AFC CTL)
- A.P : T750 AFC
  (Automatic Frequency Control)
  (VCO COIL)

Procedure:

a. Connect as shown in Fig. 3-2.
b. Input the PAL I 38.9MHz (Strength of input electric field: 75±5dBu) signal Out Terminal of TV RF Pattern GEN instrument.
c. Confirm that the video signal is Output by connect oscilloscope to P7M01 ②PIN.
d. Adjust VCO coil T750 so that the voltage of P7M02 pin⑤ became DC 2.5±0.1V.

Connection

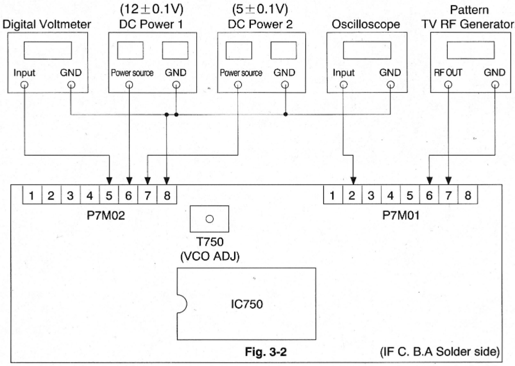

Digital Voltmeter
Input
GND
(12±0.1V)
DC Power 1
Power source
GND
(5±0.1V)
DC Power 2
Power source
GND
Oscilloscope
Input
GND
Pattern
TV RF Generator.
RF OUT
GND
1
2
3
4
5
6
7
8
P7M02
1
2
3
4
5
6
7
8
P7M01
T750
(VCO ADJ)
IC750
(IF C. B.A Solder side)

Fig. 3-2

2) RF AGC (Automatic Gain Control) Adjustment

- MODE : PAL B/G (E11CH)
- SPEC : 5.5±0.1V p-p
- M.P : W393
- A.P : VR701

Procedure:

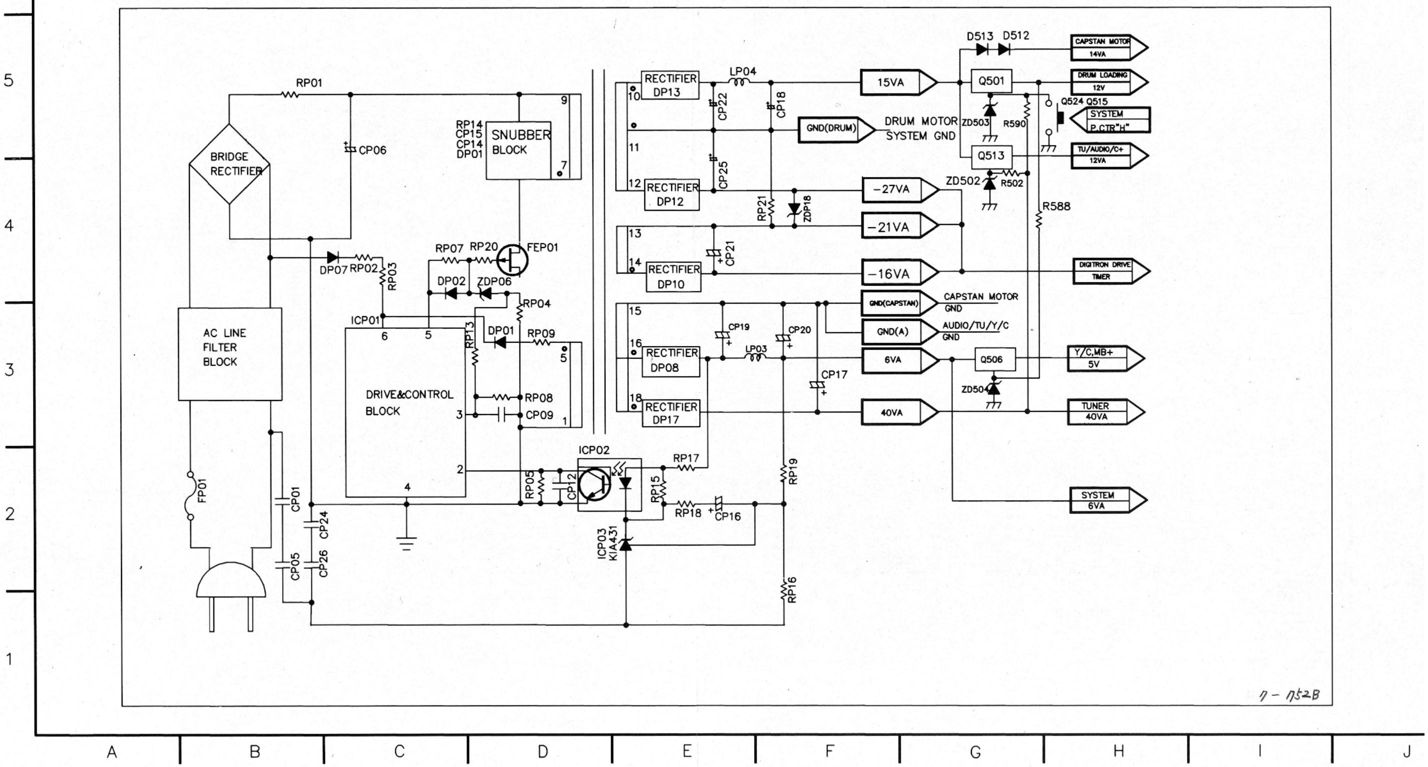
a. Be tuning PAL B/G E11CH (216.25MHZ) (strength of input electric field: 70±1dBu).
b. Connect the Digital Voltmeter to Tuner AGC PIN.
c. Adjust VR701 so that the digital voltmeter is 5.5 ± 0.1Vp-p.

Reference:

Maintain the input gain in adjusting AGC faithfully.

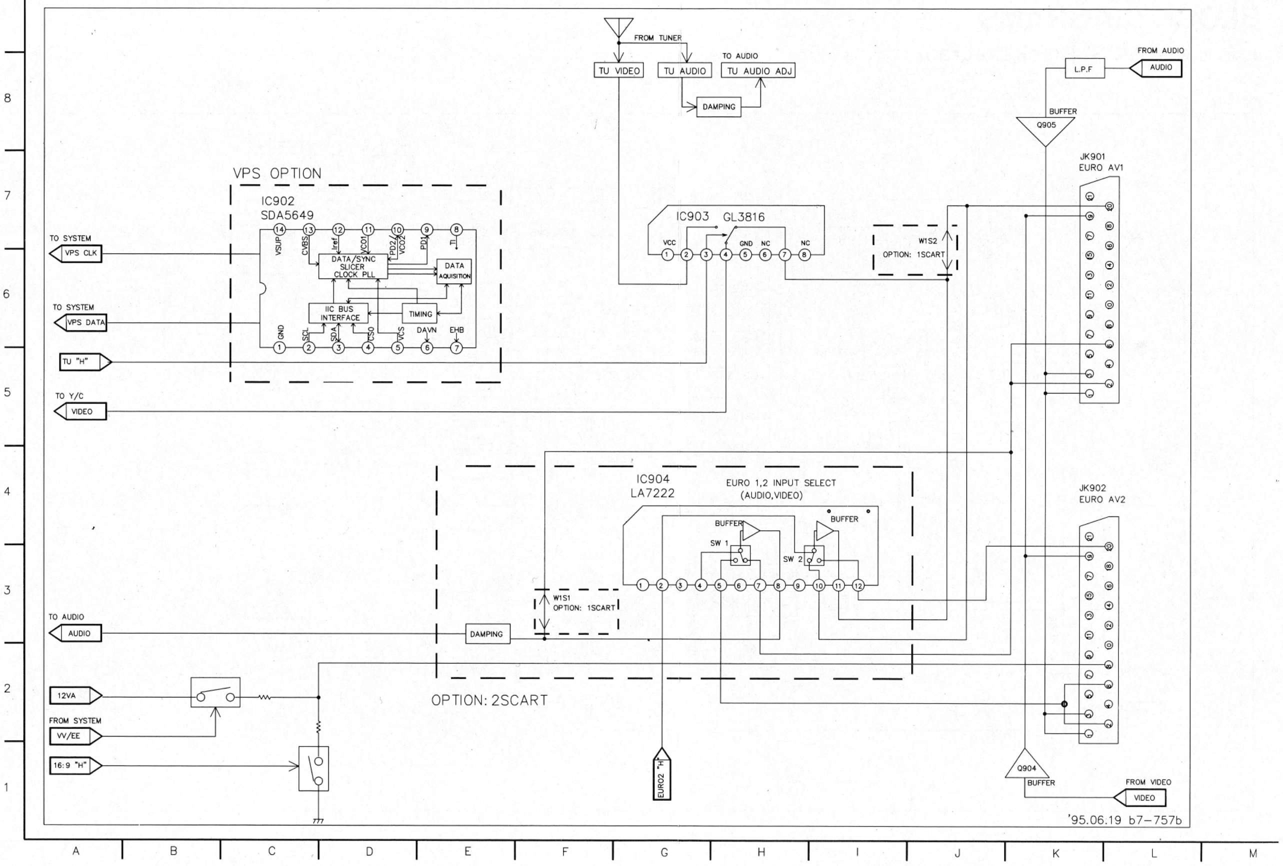
BLOCK DIAGRAMS

1. Power (SMPS) Block Diagram


5
4
3
2
1
A
B
C
D
E
F
G
H
I
J
RP01
BRIDGE RECTIFIER
CP06
AC LINE FILTER BLOCK
FP01
CP01
CP24
CP05
CP26
RP14
CP15
CP14
DP01
SNUBBER BLOCK
9
7
5
1
DP07
RP02
RP03
RP07
RP20
FEP01
DP02
ZDP06
RP04
ICP01
6
5
4
3
2
RP13
DP01
RP09
RP08
CP09
DRIVE&CONTROL BLOCK
ICP02
RP05
CP12
RP15
RP17
RP18
CP16
ICP03
KIA431
RP19
RP16
10
11
12
13
14
15
16
18
RECTIFIER DP13
RECTIFIER DP12
RECTIFIER DP10
RECTIFIER DP08
RECTIFIER DP17
LP04
CP22
CP18
CP25
RP21
ZDP18
CP21
CP19
CP20
LP03
CP17
15VA
GND(DRUM)
DRUM MOTOR SYSTEM GND
−27VA
−21VA
−16VA
GND(CAPSTAN)
CAPSTAN MOTOR GND
GND(A)
AUDIO/TU/Y/C GND
6VA
40VA
D513
D512
Q501
ZD503
R590
Q524 Q515
Q513
ZD502
R502
R588
Q506
ZD504
CAPSTAN MOTOR 14VA
DRUM LOADING 12V
SYSTEM P.CTR"H"
TU/AUDIO/C+ 12VA
DIGITRON DRIVE TIMER
Y/C,MB+ 5V
TUNER 40VA
SYSTEM 6VA

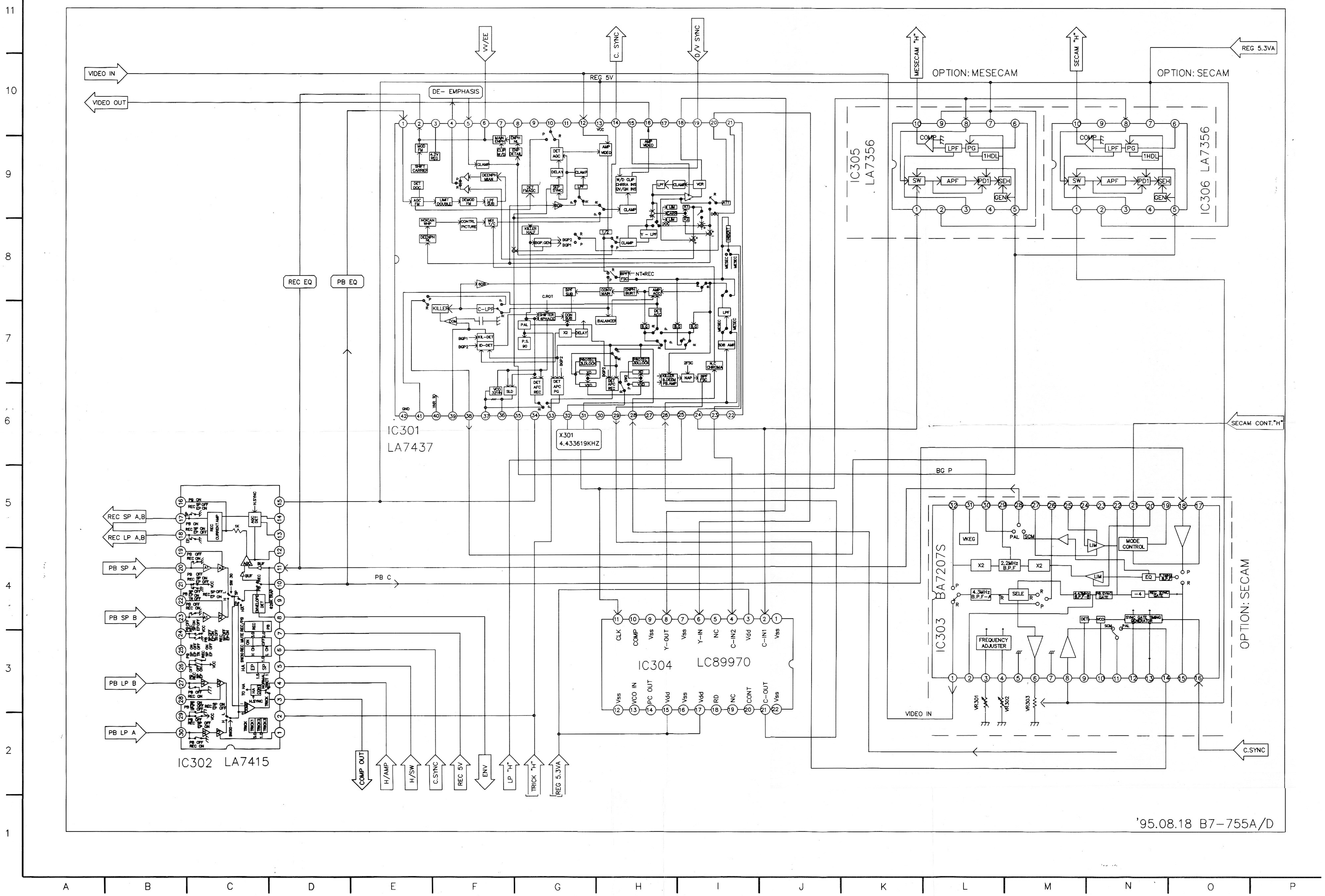
7-752B

2. Jack Block Diagram



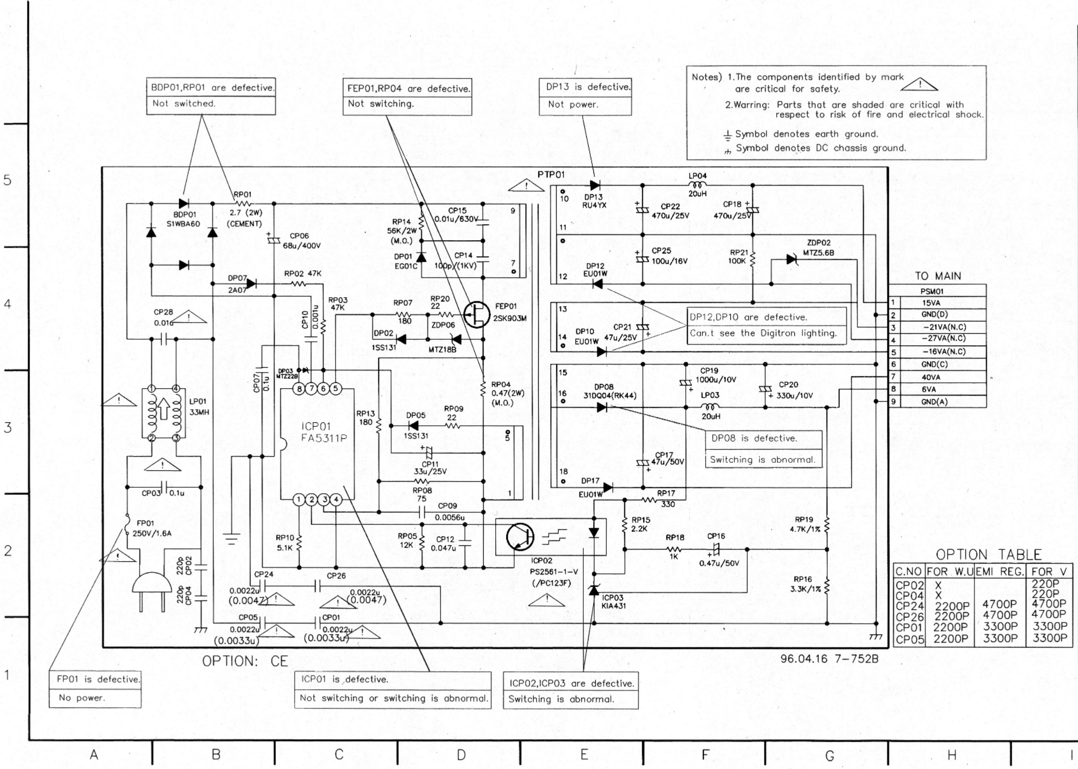
FROM TUNER
TU VIDEO
TU AUDIO
TO AUDIO
TU AUDIO ADJ
DAMPING
FROM AUDIO
AUDIO
L.P.F
BUFFER
Q905
JK901
EURO AV1
VPS OPTION
IC902
SDA5649
VSUP
CVBS
Iref
VCO1
PD2/VCO2
PD1
TI
DATA/SYNC SLICER CLOCK PLL
DATA AQUISITION
IIC BUS INTERFACE
TIMING
GND
SCL
SDA
CS0
VCS
DAVN
EHB
TO SYSTEM
VPS CLK
TO SYSTEM
VPS DATA
TU "H"
TO Y/C
VIDEO
IC903 GL3816
VCC
GND
NC
NC
W1S2
OPTION: 1SCART
IC904
LA7222
EURO 1,2 INPUT SELECT
(AUDIO,VIDEO)
BUFFER
BUFFER
SW 1
SW 2
JK902
EURO AV2
W1S1
OPTION: 1SCART
TO AUDIO
AUDIO
DAMPING
OPTION: 2SCART
12VA
FROM SYSTEM
VV/EE
16:9 "H"
EURO2 "H"
Q904
BUFFER
FROM VIDEO
VIDEO
'95.06.19 b7-757b
8
7
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I
J
K
L
M

4. Y/C Block Diagram


VIDEO IN
VIDEO OUT
VV/EE
C. SYNC
D/V SYNC
REC 5V
DE- EMPHASIS
REC EQ
PB EQ
PB C
IC301
LA7437
X301
4.433619KHZ
MESECAM "H"
OPTION: MESECAM
SECAM "H"
OPTION: SECAM
REG 5.3VA
IC305
LA7356
IC306
LA7356
COMP
LPF
PG
1HDL
SW
APF
PD1
SEH
GEN
SECAM CONT."H"
BG P
IC303
BA7207S
OPTION: SECAM
VKEG
X2
2.2MHz B.P.F
MODE CONTROL
LIM
EQ
4.3MHz B.P.F
SELE
FREQUENCY ADJUSTER
VR301
VR302
VR303
VIDEO IN
C.SYNC
IC304
LC89970
CLK
COMP
Vss
Y-OUT
Vss
Y-IN
NC
C-IN2
Vdd
C-IN1
Vss
Vss
VCO IN
PC OUT
Vdd
Vss
Vdd
RD
NC
CONT
C-OUT
Vss
IC302
LA7415
REC SP A,B
REC LP A,B
PB SP A
PB SP B
PB LP B
PB LP A
COMP OUT
H/AMP
H/SW
C.SYNC
REC 5V
ENV
LP "H"
TRICK "H"
REG 5.3VA
'95.08.18 B7-755A/D
11
10
9
8
7
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

CIRCUIT DIAGRAMS

1. Power (SMPS) Circuit Diagram


PTP01
BDP01
S1WBA60
RP01
2.7 (2W)
(CEMENT)
CP06
68u/400V
DP07
2A07
RP02 47K
CP28
0.01u
LP01
33MH
CP03 0.1u
FP01
250V/1.6A
220p CP02
220p CP04
CP24
0.0022u
(0.0047)
CP26
0.0022u
(0.0047)
CP05
0.0022u
(0.0033u)
CP01
0.0022u
(0.0033u)
CP10
0.001u
CP07
0.1u
DP03
MTZ22B
RP03
47K
ICP01
FA5311P
RP10
5.1K
RP14
56K/2W
(M.O.)
DP01
EG01C
CP15
0.01u/630V
CP14
100p/(1KV)
RP07
180
RP20
22
ZDP06
DP02
1SS131
MTZ18B
FEP01
2SK903M
RP04
0.47(2W)
(M.O.)
RP13
180
DP05
1SS131
RP09
22
CP11
33u/25V
RP08
75
CP09
0.0056u
RP05
12K
CP12
0.047u
ICP02
PS2561-1-V
(/PC123F)
ICP03
KIA431
DP13
RU4YX
LP04
20uH
CP22
470u/25V
CP18
470u/25V
CP25
100u/16V
RP21
100K
ZDP02
MTZ5.6B
DP12
EU01W
DP10
EU01W
CP21
47u/25V
DP08
31DQ04(RK44)
CP19
1000u/10V
LP03
20uH
CP20
330u/10V
CP17
47u/50V
DP17
EU01W
RP17
330
RP15
2.2K
RP18
1K
CP16
0.47u/50V
RP19
4.7K/1%
RP16
3.3K/1%
TO MAIN
PSM01
1 15VA
2 GND(D)
3 −21VA(N.C)
4 −27VA(N.C)
5 −16VA(N.C)
6 GND(C)
7 40VA
8 6VA
9 GND(A)
OPTION: CE
96.04.16 7-752B
A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5

Notes) 1.The components identified by mark ⚠ are critical for safety.

2.Warring: Parts that are shaded are critical with respect to risk of fire and electrical shock.

⏚ Symbol denotes earth ground.

⊥ Symbol denotes DC chassis ground.

BDP01,RP01 are defective.
Not switched.

FEP01,RP04 are defective.
Not switching.

DP13 is defective.
Not power.

DP12,DP10 are defective.
Can.t see the Digitron lighting.

DP08 is defective.
Switching is abnormal.

FP01 is defective.
No power.

ICP01 is defective.
Not switching or switching is abnormal.

ICP02,ICP03 are defective.
Switching is abnormal.

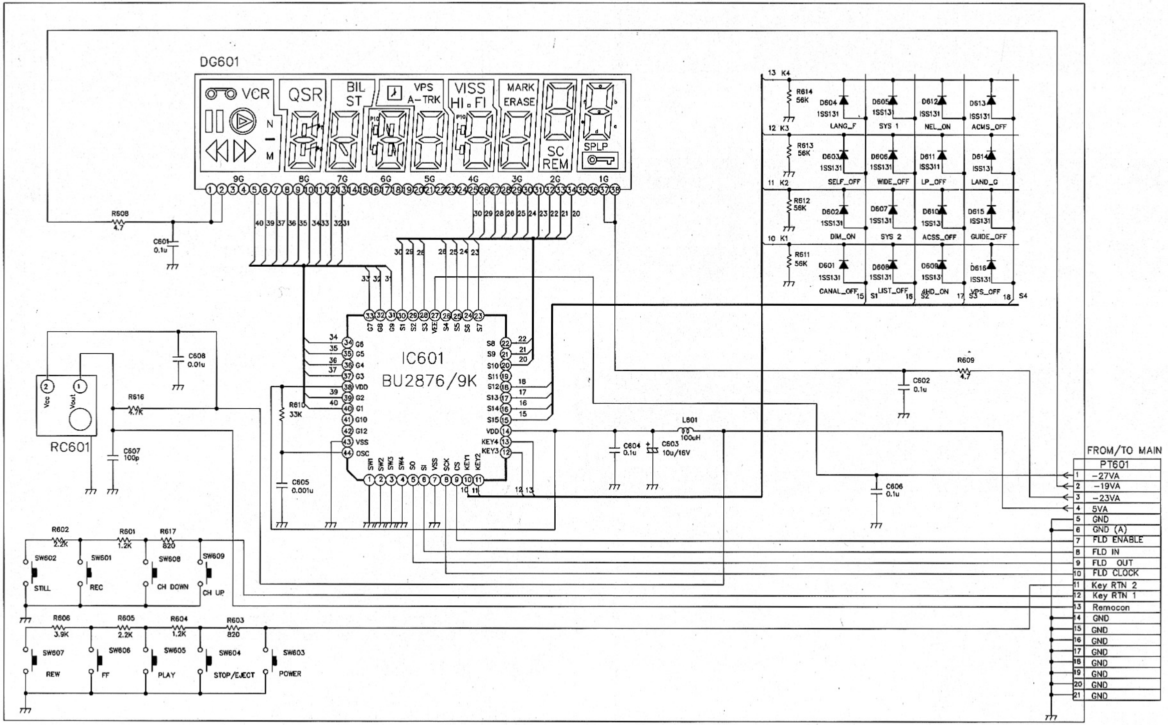
OPTION TABLE

C.NO	FOR W.U	EMI REG.	FOR V
CP02	X		220P
CP04	X		220P
CP24	2200P	4700P	4700P
CP26	2200P	4700P	4700P
CP01	2200P	3300P	3300P
CP05	2200P	3300P	3300P

LOCATION GUIDE

BDP01	B5	RP15	E2
CP01	B1	RP16	G2
CP02	A2	RP17	F2
CP03	A2	RP18	F2
CP04	A2	RP19	G2
CP05	C1	RP20	D4
CP06	C5	RP21	F4
CP07	B3	ZDP02	G5
CP09	D2	ZDP06	D4
CP10	C4		
CP11	C3		
CP12	D2		
CP14	D4		
CP15	D5		
CP16	F2		
CP17	F3		
CP18	F5		
CP19	F3		
CP20	G3		
CP21	E4		
CP22	F5		
CP24	C2		
CP25	F4		
CP26	C2		
CP28	B4		
DP01	C4		
DP02	C4		
DP05	D3		
DP07	B4		
DP08	E3		
DP10	E4		
DP12	E4		
DP13	E5		
DP17	E3		
FEP01	D4		
FP01	A2		
ICP01	C3		
ICP02	E2		
ICP03	E2		
LP01	B3		
LP03	F3		
LP04	F5		
PSM01	H4		
RP01	B5		
RP02	C4		
RP03	C4		
RP04	D3		
RP05	D2		
RP07	C4		
RP08	D3		
RP09	D3		
RP10	C2		
RP13	C3		
RP14	C5		

3. Timer Circuit Diagram


DG601
VCR
QSR
BIL
ST
VPS
A-TRK
VISS
HI FI
MARK
ERASE
SC
REM
SPLP
N
M
9G
8G
7G
6G
5G
4G
3G
2G
1G
R608
4.7
C601
0.1u
IC601
BU2876/9K
G7 G8 G9 S1 S2 S3 VEE S4 S5 S6 S7
G6 G5 G4 G3 VDD G2 G1 G10 G12 VSS OSC
S8 S9 S10 S11 S12 S13 S14 S15 VDD KEY4 KEY3
SW1 SW2 SW3 SW4 SO SI VSS SCK CS KEY1 KEY2
R610
33K
C605
0.001u
C608
0.01u
R616
4.7K
C607
100p
RC601
Vcc
Vout
13 K4
12 K3
11 K2
10 K1
R614 56K
R613 56K
R612 56K
R611 56K
D604 1SS131 LANG_F
D605 1SS131 SYS 1
D612 ISS131 NEL_ON
D613 ISS131 ACMS_OFF
D603 1SS131 SELF_OFF
D606 1SS131 WIDE_OFF
D611 ISS311 LP_OFF
D614 ISS131 LAND_G
D602 1SS131 DIM_ON
D607 1SS131 SYS 2
D610 1SS131 ACSS_OFF
D615 ISS131 GUIDE_OFF
D601 1SS131 CANAL_OFF
D608 1SS131 LIST_OFF
D609 1SS131 4HD_ON
D616 ISS131 VPS_OFF
15 S1
16 S2
17 S3
18 S4
R609
4.7
C602
0.1u
L601
100uH
C604
0.1u
C603
10u/16V
C606
0.1u
R602 2.2K
R601 1.2K
R617 820
SW602 STILL
SW601 REC
SW608 CH DOWN
SW609 CH UP
R606 3.9K
R605 2.2K
R604 1.2K
R603 820
SW607 REW
SW606 FF
SW605 PLAY
SW604 STOP/EJECT
SW603 POWER
FROM/TO MAIN
PT601
1 -27VA
2 -19VA
3 -23VA
4 5VA
5 GND
6 GND (A)
7 FLD ENABLE
8 FLD IN
9 FLD OUT
10 FLD CLOCK
11 Key RTN 2
12 Key RTN 1
13 Remocon
14 GND
15 GND
16 GND
17 GND
18 GND
19 GND
20 GND
21 GND
8
7
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I
J
K
L
M

'95.06.16 7-754B

LOCATION GUIDE

C601	C6
C602	I4
C603	G4
C604	G4
C605	D3
C606	I3
C607	B4
C608	C5
D601	I5
D602	I6
D603	I6
D604	I7
D605	I7
D606	I6
D607	I6
D608	I5
D609	J5
D610	J6
D611	J6
D612	J7
D613	J7
D614	J6
D615	J6
D616	J5
DG601	E7
IC601	E4
L601	G4
PT601	K4
R601	B3
R602	B3
R603	C2
R604	C2
R605	B2
R606	B2
R608	B6
R609	J4
R610	D4
R611	H5
R612	H6
R613	H6
R614	H7
R616	B4
R617	C3
RC601	B4
SW601	B3
SW602	A3
SW603	D2
SW604	C2
SW605	C2
SW606	B2
SW607	B2
SW608	C3
SW609	C3

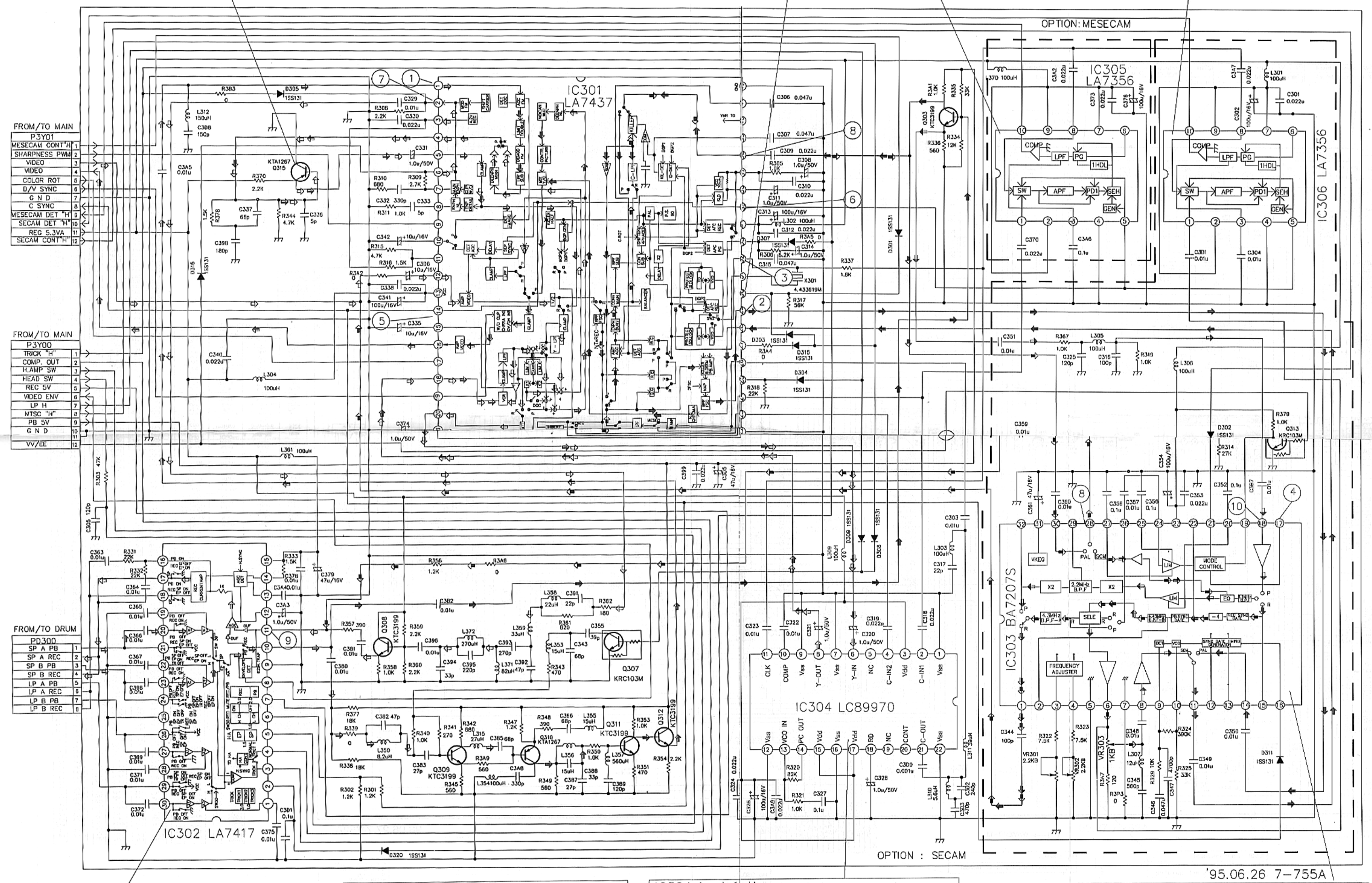
5. Y/C Circuit Diagram

Q315 is defective.
Playback screen doesn't appear.

IC301 Pin30 is defective.
PAL,MESECAM mode detecty is failed.
Color signal is unstable.

IC305 is defective.
MESECAM mode detecty is failed.

IC306 is defective.
SECAM mode detecty is failed.



FROM/TO MAIN
P3Y01
MESECAM CONT"H"
SHARPNESS PWM
VIDEO
VIDEO
COLOR ROT
D/V SYNC
G N D
C SYNC
MESECAM DET "H"
SECAM DET "H"
REG 5.3VA
SECAM CONT"H"
FROM/TO MAIN
P3Y00
TRICK "H"
COMP. OUT
H.AMP SW
HEAD SW
REC 5V
VIDEO ENV
LP H
NTSC "H"
PB 5V
G N D
VV/EE
FROM/TO DRUM
PD300
SP A PB
SP A REC
SP B PB
SP B REC
LP A PB
LP A REC
LP B PB
LP B REC
IC301 LA7437
IC302 LA7417
IC303 BA7207S
IC304 LC89970
IC305 LA7356
IC306 LA7356
OPTION: MESECAM
OPTION : SECAM
Q315 KTA1267
Q307 KRC103M
Q308 KTC3199
Q309 KTC3199
Q310 KTA1267
Q311 KTC3199
Q312 KTC3199
Q303 KTC3199
Q313 KRC103M
X301 4.433619M
FREQUENCY ADJUSTER
MODE CONTROL
'95.06.26 7-755A

IC302 Pin7 is defective.
Playback recording mode is failed.

⇨ REC Y SIGNAL	➡ PB Y SIGNAL
➡ REC C SIGNAL	➡ PB C SIGNAL
➡ REC C(SECAM) SIGNAL	⇨ PB C(SECAM) SIGNAL
○— WAVEFORM	

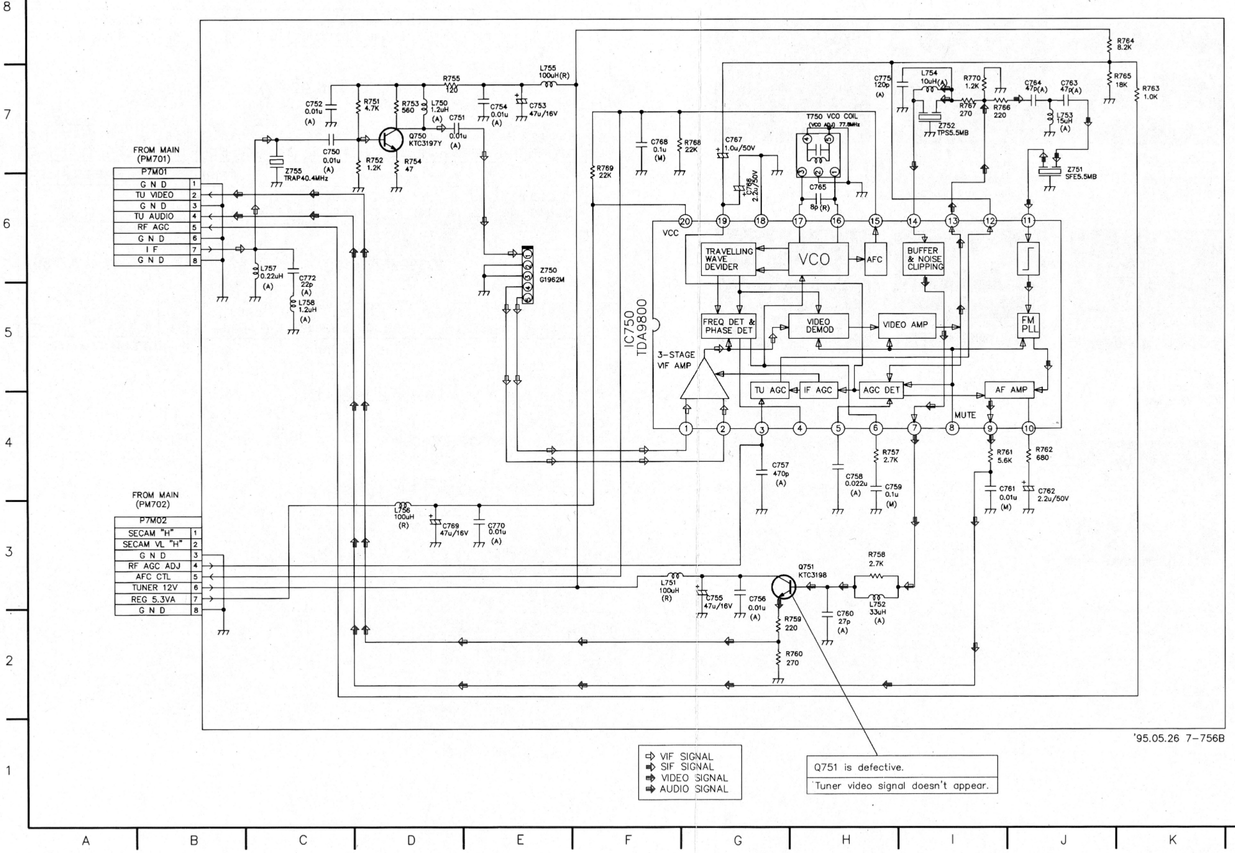
IC304 is defective.
Drop out conpersation is failed.
Color signal doesn't appear in the PB mode.

IC303 is defective.
SECAM mode is failed.
Color signal doesn't appear in the PB and SECAM mode.

LOCATION GUIDE

C301	P10	D308	K5
C302	O10	D309	K5
C303	L5	D311	O3
C304	O9	D315	J7
C305	B5	D316	C8
C306	J10	D320	E1
C307	J10	IC301	G9
C308	J10	IC302	C3
C309	J10	IC303	N4
C310	J9	IC304	K3
C311	J9	IC305	M9
C312	J9	IC306	Q9
C313	J9	L301	P11
C314	J9	L302	J9
C315	J8	L303	L5
C316	N7	L304	D7
C317	L5	L305	N8
C318	L4	L306	O7
C319	K4	L307	N3
C320	K4	L309	J5
C321	J4	L310	L2
C322	J4	L311	L3
C323	J4	L312	C10
C324	I2	L315	F3
C325	M7	L350	E3
C326	J2	L353	G4
C327	J2	L354	F2
C328	K2	L355	H3
C329	F10	L356	G3
C330	F10	L357	H3
C331	F10	L358	G4
C332	E9	L359	G4
C333	F9	L361	D6
C335	F8	L370	L11
C336	D9	L371	G4
C337	D9	L372	F4
C338	E8	P3Y00	A7
C340	C7	P3Y01	A10
C341	E8	PD300	A4
C342	E9	Q303	L10
C343	G4	Q307	H4
C344	L3	Q308	E4
C345	N2	Q309	F2
C346	N2	Q310	G3
C347	N2	Q311	H3
C348	N3	Q312	H3
C349	O3	Q313	P6
C350	O3	Q315	D9
C351	L8	R301	E2
C352	O6	R302	E2
C353	O6	R303	B6
C354	N6	R305	J10
C355	H4	R306	J8
C356	N6	R308	E10
C357	N6	R309	F9
C358	N6	R310	E9
C359	M7	R311	E9
C360	M6	R314	O6
C361	M6	R315	E9
[illegible]	[illegible]	[illegible]	[illegible]
C365	B4	R318	J7
C366	B4	R319	N7
C367	B4	R320	J2
C368	B3	R321	J2
C369	B3	R322	M3
C370	M9	R323	M3
C371	B2	R324	O3
C372	B2	R325	O2
C373	N10	R329	N2
C374	E7	R331	B5
C375	D2	R332	B5
C376	N10	R333	D5
C378	D5	R334	L10
C379	E5	R335	L10
C380	E4	R336	L10
C381	E4	R337	K8
C382	E3	R338	E3
C383	F3	R339	E3
C385	F3	R340	F3
C386	G3	R341	F3
C387	G2	R342	F3
C388	H2	R343	G4
C389	H2	R344	D9
C391	G4	R345	F2
C392	G4	R347	G3
C393	G4	R348	G3
C394	F4	R349	G2
C395	F4	R350	H3
C396	F4	R351	H2
C398	C9	R353	H3
C399	I6	R354	I3
C3A2	M11	R356	F5
C3A3	D4	R357	E4
C3A4	D5	R358	E4
C3A5	C9	R359	F4
C3A6	M9	R360	F4
C3A7	O11	R361	G4
C3A8	G2	R362	H4
C3A9	J2	R367	M8
C3B1	O9	R370	D9
C3B2	F4	R377	E3
C3B7	O6	R378	C9
C3D1	D2	R379	P7
C3D2	L2	R3A1	L10
C3D3	L2	R3A2	E8
C3D5	I6	R3A4	J7
C3D6	F8	R3A5	K9
C3D8	C10	R3A6	G5
C3D9	K3	R3A7	N2
D301	K9	R3A9	F3
D302	O6	R3B3	C10
D303	J7	R3P3	N2
D304	J7	VR301	M3
D305	D10	VR302	M2
D307	J9	VR303	N3
		X301	J8

6. IF Circuit Diagram


FROM MAIN (PM701)
P7M01
1 G N D
2 TU VIDEO
3 G N D
4 TU AUDIO
5 RF AGC
6 G N D
7 I F
8 G N D
FROM MAIN (PM702)
P7M02
1 SECAM "H"
2 SECAM VL "H"
3 G N D
4 RF AGC ADJ
5 AFC CTL
6 TUNER 12V
7 REG 5.3VA
8 G N D
C752 0.01u (A)
R751 4.7K
R753 560
L750 1.2uH (A)
R755 120
L755 100uH(R)
C754 0.01u (A)
C753 47u/16V
C751 0.01u (A)
Q750 KTC3197Y
C750 0.01u (A)
R752 1.2K
R754 47
Z755 TRAP40.4MHz
L757 0.22uH (A)
C772 22p (A)
L758 1.2uH (A)
Z750 G1962M
R769 22K
C768 0.1u (M)
R768 22K
C767 1.0u/50V
C766 2.2u/50V
T750 VCO COIL (VCO ADJ) 77.8MHz
C765 8p (R)
C775 120p (A)
L754 10uH(A)
R770 1.2K
R767 270
R766 220
Z752 TPS5.5MB
C764 47p(A)
C763 47p(A)
L753 15uH (A)
Z751 SFE5.5MB
R764 8.2K
R765 18K
R763 1.0K
VCC
TRAVELLING WAVE DEVIDER
VCO
AFC
BUFFER & NOISE CLIPPING
FREQ DET & PHASE DET
VIDEO DEMOD
VIDEO AMP
FM PLL
IC750 TDA9800
3-STAGE VIF AMP
TU AGC
IF AGC
AGC DET
AF AMP
MUTE
C757 470p (A)
C758 0.022u (A)
R757 2.7K
C759 0.1u (M)
R761 5.6K
R762 680
C761 0.01u (M)
C762 2.2u/50V
L756 100uH (R)
C769 47u/16V
C770 0.01u (A)
L751 100uH (R)
C755 47u/16V
C756 0.01u (A)
Q751 KTC3198
R758 2.7K
L752 33uH (A)
C760 27p (A)
R759 220
R760 270
VIF SIGNAL
SIF SIGNAL
VIDEO SIGNAL
AUDIO SIGNAL
1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
K
L
M

'95.05.26 7-756B

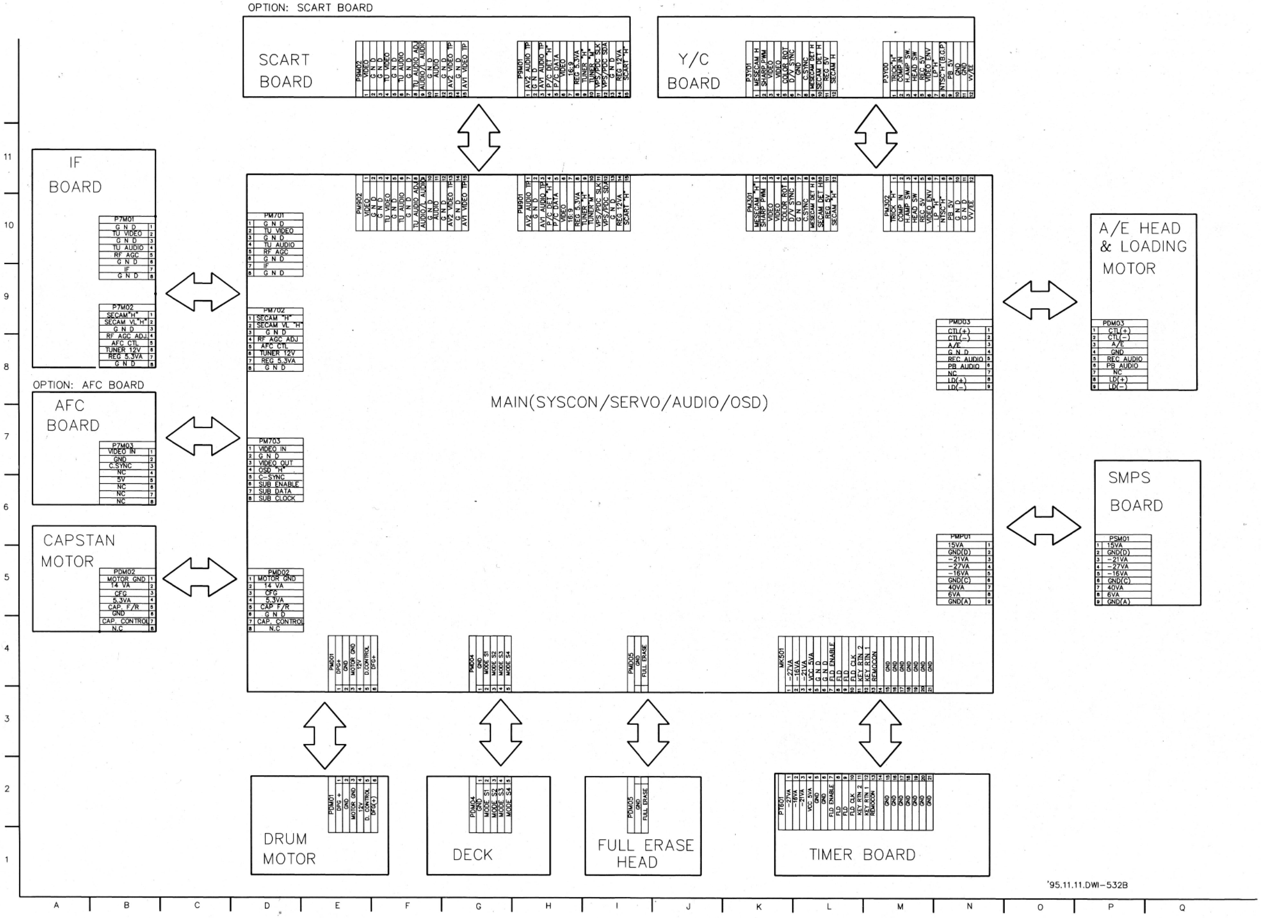
Q751 is defective.

Tuner video signal doesn't appear.

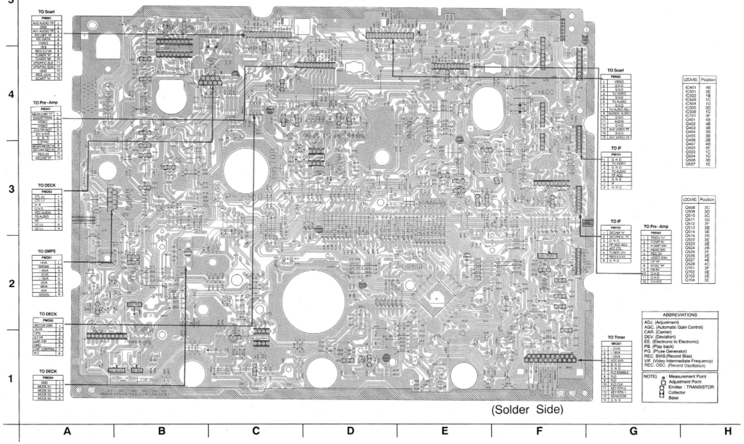
LOCATION GUIDE

C750	C7
C751	D7
C752	C7
C753	E7
C754	E7
C755	G3
C756	G3
C757	G4
C758	H4
C759	H4
C760	H2
C761	I4
C762	J4
C763	J7
C764	J7
C765	H6
C766	G6
C767	G7
C768	F7
C769	D3
C770	E3
C772	C6
C775	H7
IC750	F10
L750	D7
L751	F3
L752	H3
L753	J7
L754	I7
L755	E7
L756	D3
L757	C6
L758	C5
P7M01	B6
P7M02	B3
Q750	D7
Q751	H3
R751	D7
R752	D7
R753	D7
R754	D7
R755	D7
R757	H4
R758	H3
R759	G2
R760	G2
R761	I4
R762	J4
R763	K7
R764	K8
R765	K7
R766	I7
R767	I7
R768	G7
R769	F7
R770	I7
T750	H7
Z750	E6
Z751	J6
Z752	I7
Z755	C6

7. Connection Diagram


OPTION: SCART BOARD
SCART BOARD
P9M02
1 VIDEO
2 G N D
3 G N D
4 TU VIDEO
5 G N D
6 TU AUDIO
7 G N D
8 TU AUDIO ADJ
9 AUDIO/L AUDIO
10 G N D
11 AUDIO
12 G N D
13 AV2 VIDEO TP
14 G N D
15 AV1 VIDEO TP
P9M01
1 AV2 AUDIO TP
2 G N D
3 AV1 AUDIO TP
4 P/C DET "H"
5 P/C DATA
6 VIDEO
7 16:9
8 REG 5.3VA
9 TUNER "H"
10 TUNER "M"
11 VPS/PDC SLK
12 VPS/PDC SDA
13 G N D
14 REG 12VA
15 SCART "H"
Y/C BOARD
P3Y01
1 MESECAM H
2 SHARP PWM
3 VIDEO
4 VIDEO
5 COLOR ROT
6 D/V SYNC
7 GND
8 C.SYNC
9 MESECAM DET H
10 SECAM DET H
11 REG 5V
12 SECAM H
P3Y00
1 TRICK "H"
2 COMP.IN
3 H.AMP SW.
4 HEAD SW
5 REC 5V
6 VIDEO ENV
7 LP "H"
8 NTSC "H" (B.G.P)
9 PB 5V
10 GND
11 GND
12 VV/EE
PM902
1 VIDEO
2 G N D
3 G N D
4 TU VIDEO
5 G N D
6 TU AUDIO
7 G N D
8 TU AUDIO ADJ
9 AUDIO/L AUDIO
10 G N D
11 AUDIO
12 G N D
13 AV2 VIDEO TP
14 G N D
15 AV1 VIDEO TP
PM901
1 AV2 AUDIO TP
2 G N D
3 AV1 AUDIO TP
4 P/C DET "H"
5 P/C DATA
6 VIDEO
7 16:9
8 REG 5.3VA
9 TUNER "H"
10 TUNER "M"
11 VPS/PDC SLK
12 VPS/PDC SDA
13 G N D
14 REG 12VA
15 SCART "H"
PM301
1 MESECAM "H"
2 SHARP PWM
3 VIDEO
4 VIDEO
5 COLOR ROT
6 D/V SYNC
7 G N D
8 C.SYNC
9 MESECAM DET H
10 SECAM DET H
11 REG 5V
12 SECAM "H"
PM302
1 TRICK "H"
2 COMP IN
3 H.AMP SW
4 HEAD SW
5 REC 5V
6 VIDEO ENV
7 LP "H"
8 NTSC "H"
9 PB 5V
10 G N D
11 G N D
12 VV/EE
IF BOARD
P7M01
G N D 1
TU VIDEO 2
G N D 3
TU AUDIO 4
RF AGC 5
G N D 6
IF 7
G N D 8
P7M02
SECAM "H" 1
SECAM VL "H" 2
G N D 3
RF AGC ADJ 4
AFC CTL 5
TUNER 12V 6
REG 5.3VA 7
G N D 8
PM701
1 G N D
2 TU VIDEO
3 G N D
4 TU AUDIO
5 RF AGC
6 G N D
7 IF
8 G N D
PM702
1 SECAM "H"
2 SECAM VL "H"
3 G N D
4 RF AGC ADJ
5 AFC CTL
6 TUNER 12V
7 REG 5.3VA
8 G N D
OPTION: AFC BOARD
AFC BOARD
P7M03
VIDEO IN 1
GND 2
C.SYNC 3
NC 4
5V 5
NC 6
NC 7
NC 8
PM703
1 VIDEO IN
2 G N D
3 VIDEO OUT
4 OSD "H"
5 C-SYNC
6 SUB ENABLE
7 SUB DATA
8 SUB CLOCK
CAPSTAN MOTOR
PDM02
MOTOR GND 1
14 VA 2
CFG 3
5.3VA 4
CAP. F/R 5
GND 6
CAP. CONTROL 7
N.C 8
PMD02
1 MOTOR GND
2 14 VA
3 CFG
4 5.3VA
5 CAP F/R
6 G N D
7 CAP. CONTROL
8 N.C
MAIN(SYSCON/SERVO/AUDIO/OSD)
PMD03
CTL(+) 1
CTL(−) 2
A/E 3
G N D 4
REC AUDIO 5
PB AUDIO 6
NC 7
LD(+) 8
LD(−) 9
A/E HEAD & LOADING MOTOR
PDM03
1 CTL(+)
2 CTL(−)
3 A/E
4 GND
5 REC AUDIO
6 PB AUDIO
7 NC
8 LD(+)
9 LD(−)
PMP01
15VA 1
GND(D) 2
−21VA 3
−27VA 4
−16VA 5
GND(C) 6
40VA 7
6VA 8
GND(A) 9
SMPS BOARD
PSM01
1 15VA
2 GND(D)
3 −21VA
4 −27VA
5 −16VA
6 GND(C)
7 40VA
8 6VA
9 GND(A)
PMD01
1 DPG+
2 GND
3 MOTOR GND
4 12V
5 D.CONTROL
6 DFG+
PMD04
1 GND
2 MODE S1
3 MODE S2
4 MODE S3
5 MODE S4
PMD05
GND
FULL ERASE
MK501
1 −27VA
2 −16VA
3 −21VA
4 VCC 5VA
5 G N D
6 G N D
7 FLD ENABLE
8 FLD
9 FLD
10 FLD CLK
11 KEY RTN 2
12 KEY RTN 1
13 REMOCON
14
15 GND
16 GND
17 GND
18 GND
19 GND
20 GND
21 GND
PDM01
1 DPG +
2 GND
3 MOTOR GND
4 12V
5 D. CONTROL
6 DFG(+)
DRUM MOTOR
PDM04
1 GND
2 MODE S1
3 MODE S2
4 MODE S3
5 MODE S4
DECK
PDM05
GND
FULL ERASE
FULL ERASE HEAD
PT601
1 −27VA
2 −16VA
3 −21VA
4 VCC 5VA
5 GND
6 GND
7 FLD ENABLE
8 FLD
9 FLD
10 FLD CLK
11 KEY RTN 2
12 KEY RTN 1
13 REMOCON
14
15 GND
16 GND
17 GND
18 GND
19 GND
20 GND
21 GND
TIMER BOARD
'95.11.11.DWI-532B
11
10
9
8
7
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q

2. MAIN P.C.Board



(Solder Side)

TO Scart

PM901	
AV2 AUDIO TP	1
GND	2
AV1 AUDIO TP	3
P/C DET "H"	4
P/C DATA	5
VIDEO	6
16:9	7
REG 5.0 VA	8
TUNER "H"	9
TUNER "M"	10
VPS/PDC SCK	11
VPS/PDC SDA	12
GND	13
REG 12VA	14
SCART "H"	15

TO Pre-Amp

PM301	
MESECAM "H"	1
SHARP PWM	2
VIDEO	3
VIDEO	4
COLOR ROT	5
DIV SYNC	6
G N D	7
C.SYNC	8
MESECAM DET H	9
SECAM DET H	10
REG 5V	11
SECAM "H"	12

TO DECK

PMD03	
CTL (+)	1
CTL (-)	2
A/E	3
G N D	4
REC AUDIO	5
PB AUDIO	6
NC	7
LD (+)	8
LD (-)	9

TO SMPS

PMD01	
14VA	1
GND(M)	2
-29VA	3
-31VA	4
-12VA	5
12VA	6
36VA	7
6VA	8
GND(D)	9

TO DECK

PMD02	
MOTOR GND	1
14 VA	2
CFG	3
5.3 VA	4
CAP. F/R	5
GND	6
CAP. CONTROL	7
N.C	8

TO DECK

PMD04	
GND	1
MODE S1	2
MODE S2	3
MODE S3	4
MODE S4	5

TO Scart

	PM902
1	VIDEO
2	G N D
3	G N D
4	TU VIDEO
5	G N D
6	TU AUDIO
7	G N D
8	TU AUDIO ADJ
9	AUDIO/L AUDIO
10	G N D
11	AUDIO
12	G N D
13	AV2 VIDEO TP
14	G N D
15	AV1 VIDEO TP

TO IF

	PM701
1	G N D
2	TU VIDEO
3	G N D
4	TU AUDIO
5	RF AGC
6	G N D
7	IF
8	G N D

TO IF

	PM702
1	SECAM "H"
2	SECAM VL "H"
3	G N D
4	RF AGC ADJ
5	AFC CTL
6	TUNER 12V
7	REG 5.3 VA
8	G N D

TO Pre-Amp

	PM302
1	TRICK "H"
2	COMP IN
3	H AMP SW
4	HEAD SW
5	REC 5V
6	VIDEO ENV
7	LP "H"
8	NTSC "H"
9	PB 5V
10	GND
11	GND
12	VV/EE

TO Timer

	MK901
1	-31VA
2	-19VA
3	-29VA
4	VCC 5VA
5	G N D
6	G N D
7	FLD ENABLE
8	FLD
9	FLD
10	FLD CLK
11	KEY RTN 2
12	KEY RTN 1
13	REMOCON
14	G N D

LOCA.NO.	Position
IC401	4B
IC501	2E
IC502	1B
IC503	1C
IC504	1D
IC505	3D
IC506	1C
IC701	3F
Q401	4B
Q402	4B
Q403	3B
Q404	3B
Q405	3B
Q406	2B
Q407	4B
Q502	2E
Q503	1C
Q504	1D
Q506	3B
Q507	1E

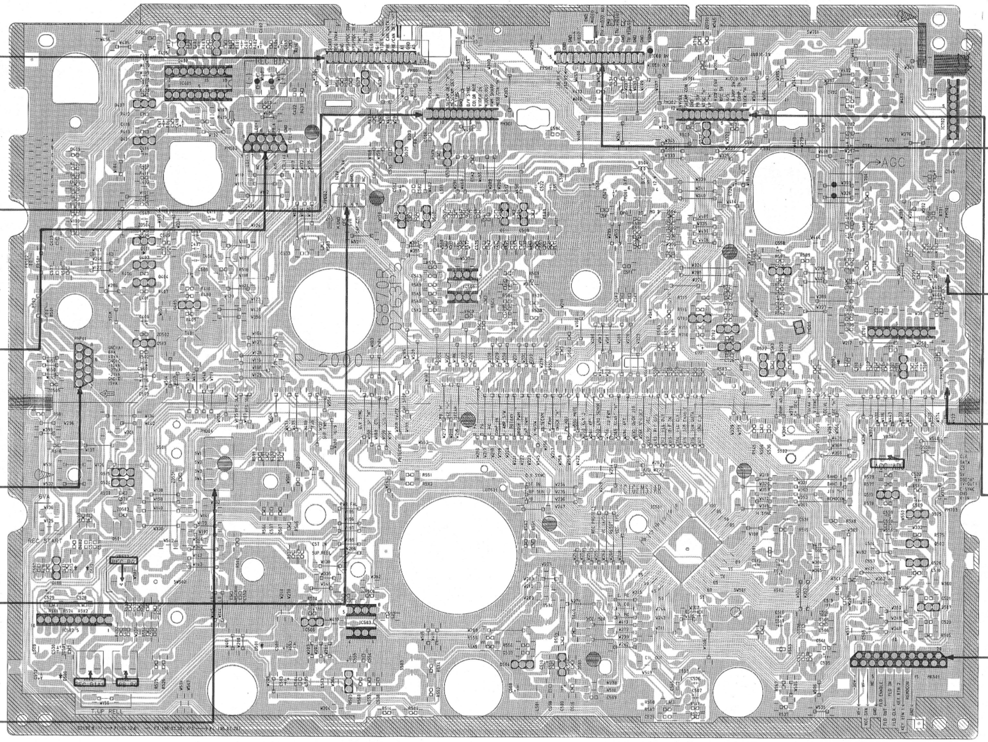
LOCA.NO.	Position
Q508	3C
Q509	3D
Q510	3C
Q511	3D
Q512	2F
Q513	3B
Q514	3E
Q515	2B
Q522	3E
Q523	3E
Q524	2B
Q525	2E
Q526	2E
Q527	4E
Q528	4C
Q701	3F
Q702	3E
Q703	3E
Q704	3E

ABBREVIATIONS

ADJ. (Adjustment)
AGC. (Automatic Gain Control)
CAR. (Carrier)
DEV. (Deviation)
EE. (Electronic to Electronic)
PB. (Play back)
PG. (Pluse Generator)
REC. BIAS(Record Bias)
VIF. (Video Intermediate Frequency)
REC. OSC. (Record Oscillation)

NOTE) ● : Measurement Point
□ Adjustment Point
○ Emitter : TRANSISTOR
○ Collector
○ Base

3. MAIN P.C.Board



(Solder Side)

TO Scart

PM901	
AV2 AUDIO TP	1
GND	2
AV1 AUDIO TP	3
P/C DET "H"	4
P/C DATA	5
VIDEO	6
16:9	7
REG 5.3 VA	8
TUNER "H"	9
TUNER "M"	10
VPS/PDC SLK	11
VPS/PDC SDA	12
GND	13
REG 12VA	14
SCART "H"	15

TO Pre-Amp

PM301	
MESECAM "H"	1
SHARP PWM	2
VIDEO	3
VIDEO	4
COLOR ROT	5
D/V SYNC	6
G N D	7
C.SYNC	8
MESECAM DET H	9
SECAM DET H	10
REG 5V	11
SECAM "H"	12

TO DECK

PMD03	
CTL (+)	1
CTL (–)	2
A / E	3
G N D	4
REC AUDIO	5
PB AUDIO	6
NC	7
LD (+)	8
LD (–)	9

TO SMPS

PMD01	
14VA	1
GND(M)	2
– 23VA	3
– 31VA	4
– 19VA	5
12VA	6
38VA	7
6VA	8
GND(A)	9

TO DECK

PMD02	
MOTOR GND	1
14 VA	2
CFG	3
5.3 VA	4
CAP. F/R	5
GND	6
CAP. CONTROL	7
N.C	8

TO DECK

PMD04	
GND	1
MODE S1	2
MODE S2	3
MODE S3	4
MODE S4	5

TO Scart

	PM902
1	VIDEO
2	G N D
3	G N D
4	TU VIDEO
5	G N D
6	TU AUDIO
7	G N D
8	TU AUDIO ADJ
9	AUDIO/L AUDIO
10	G N D
11	AUDIO
12	G N D
13	AV2 VIDEO TP
14	G N D
15	AV1 VIDEO TP

TO IF

	PM701
1	G N D
2	TU VIDEO
3	G N D
4	TU AUDIO
5	RF AGC
6	G N D
7	IF
8	G N D

TO IF

	PM702
1	SECAM "H"
2	SECAM VL "H"
3	G N D
4	RF AGC ADJ
5	AFC CTL
6	TUNER 12V
7	REG 5.3 VA
8	G N D

TO Pre-Amp

	PM302
1	TRICK "H"
2	COMP IN
3	H.AMP SW
4	HEAD SW
5	REC 5V
6	VIDEO ENV
7	LP "H"
8	NTSC "H"
9	PB 5V
10	G N D
11	G N D
12	VV/EE

TO Timer

	MK501
1	– 31VA
2	– 19VA
3	– 23VA
4	VCC 5VA
5	G N D
6	G N D
7	FLD ENABLE
8	FLD
9	FLD
10	FLD CLK
11	KEY RTN 2
12	KEY RTN 1
13	REMOCON
14	G N D

LOCA.NO.	Position
IC401	4B
IC501	2E
IC502	1B
IC503	1C
IC504	1D
IC505	3D
IC506	1C
IC701	3F
Q401	4B
Q402	4B
Q403	3B
Q404	3B
Q405	3B
Q406	2B
Q407	4B
Q502	2E
Q503	1C
Q504	1D
Q506	3B
Q507	1E

LOCA.NO.	Position
Q508	3C
Q509	3D
Q510	3C
Q511	3D
Q512	2F
Q513	3B
Q514	3E
Q515	2B
Q522	3E
Q523	3E
Q524	2B
Q525	2E
Q526	2E
Q527	4E
Q528	4C
Q701	3F
Q702	3E
Q703	3E
Q704	3E

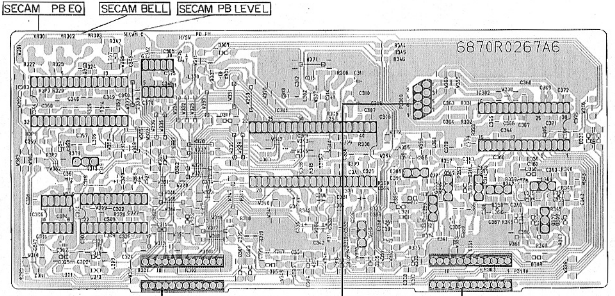
ABBREVIATIONS

ADJ. (Adjustment)
AGC. (Automatic Gain Control)
CAR. (Carrier)
DEV. (Deviation)
EE. (Electronic to Electronic)
PB. (Play back)
PG. (Pluse Generator)
REC. BIAS (Record Bias)
VIF. (Video Intermediate Frequency)
REC. OSC. (Record Oscillation)

NOTE) ● : Measurement Point
□ Adjustment Point
Emitter : TRANSISTOR
Collector
Base

5. Y/C & Pre-Amp P.C.Board

P433HP 0267A6


SECAM PB EQ
SECAM BELL
SECAM PB LEVEL
6870R0267A6

(Solder Side)

TO MAIN

P3Y01	
MESECAM CONT"H"	1
SHARPNESS PWM	2
VIDEO	3
VIDEO	4
COLOR ROT	5
D/V SYNC	6
G N D	7
C SYNC	8
MESECAM DET "H"	9
SECAM DET "H"	10
REG 5.3VA	11
SECAM CONT"H"	12

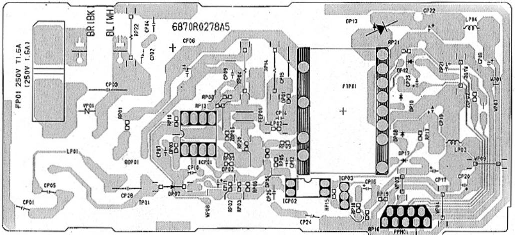
TO DECK

PD300	
SP A PB	1
SP A REC	2
SP B PB	3
SP B REC	4
LP A PB	5
LP A REC	6
LP B PB	7
LP B REC	8

TO MAIN

P3Y00	
TRICK "H"	1
COMP. OUT	2
H. AMP SW	3
HEAD SW	4
REC 5V	5
VIDEO ENV	6
LP H	7
NTSC "H"	8
PB 5V	9
G N D	10
	11
VV/EE	12

4. Power (SMPS) P.C.Board


FP01 250V T1.6A
[250V 1.6A]
BR(BK)
BL(WH)
RP22
CP04
CP02
6870R0278A5
CP06
CP03
VP01
RP01
RP08
RP13
RP10
CP07
DP05
ICP01
GDP01
LP01
CP05
CP01
CP28
TP01
DP07
CP10
VP08
RP02
RP03
RP06
RP14
CP15
DP01
FEP01
CP12
CP26
PTP01
DP13
RP21
CP22
LP04
CP18
VP07
DP12
CP25
CP21
DP10
CP19
DP08
RP17
LP03
DP17
VP02
CP17
CP20
VP03
VP04
ICP03
CP16
RP19
RP18
RP15
ICP02
CP24
RP16
PPM01

(Solder Side)

TO MAIN

	PPM01
1	15VA
2	GND(D)
3	-21VA(N.C)
4	-27VA(N.C)
5	-16VA(N.C)
6	GND(C)
7	40VA
8	6VA
9	GND(A)

If 5.3VA doesn,t input.
No RF line(modulator).

If 12VA doesn't input.
Tuning is faild.

IC701 are defective or Band A,B terminal of u-COM.
Tuning(Band selection) is failed.

Tuning PWM doesn't input.
Tuning is failed.

No power.
Loading moter is not operating.

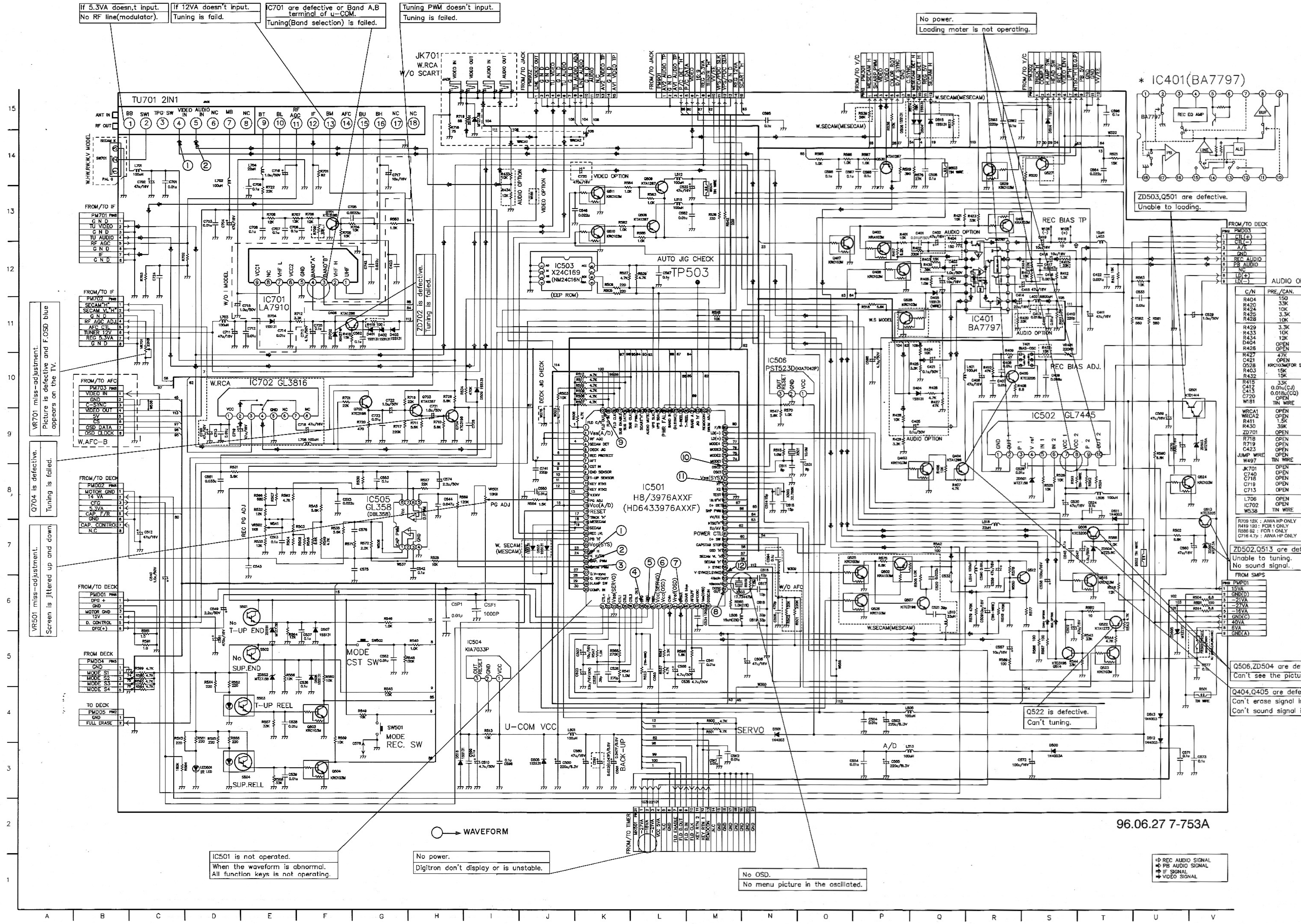
ZD503,Q501 are defective.
Unable to loading.

ZD702 is defective.
Tuning is failed.

VR701 miss-adjustment.
Picture is defective and F.OSD blue appears on the TV.

Q704 is defective.
Tuning is failed.

VR501 miss-adjustment.
Screen is jittered up and down.


TU701 2IN1
JK701 W.RCA W/O SCART
IC701 LA7910
IC702 GL3816
IC503 X24C169 (NM24C16N) (EEP ROM)
IC501 H8/3976AXXF (HD6433976AXXF)
IC505 GL358 (DBL358)
IC506 PST523D(KIA7042P)
IC504 KIA7033P
IC401 BA7797
IC502 GL7445
* IC401(BA7797)
REC EQ AMP
ALC
BUF
AUTO JIG CHECK
TP503
REC BIAS TP
REC BIAS ADJ.
AUDIO OPTION
VIDEO OPTION
W.SECAM(MESECAM)
PG ADJ
MODE CST SW
SW501 MODE REC. SW
T-UP END
SUP.END
T-UP REEL
SUP.RELL
U-COM VCC
BACK-UP
SERVO
A/D
FROM/TO DECK
PMD03
CTL(+)
CTL(-)
A/E
GND
REC AUDIO
PB AUDIO
NC
LD(+)
LD(-)
FROM SMPS
PMP01
15VA
GND(D)
-21VA
-27VA
-16VA
GND(C)
40VA
6VA
GND(A)
FROM/TO IF
PM701
PM702
FROM/TO AFC
PM703
W.AFC-B
FROM/TO DECK
PM502
FROM/TO DECK
PMD01
FROM DECK
PMD04
TO DECK
PMD05
FULL ERASE
FROM/TO TIMER
WAVEFORM
A B C D E F G H I J K L M N O P Q R S T U V
15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

ZD502,Q513 are defective.
Unable to tuning.
No sound signal.

Q506,ZD504 are defective.
Can't see the picture.

Q404,Q405 are defective.
Can't erase signal in tape.
Can't sound signal in recording.

Q522 is defective.
Can't tuning.

IC501 is not operated.
When the waveform is abnormal.
All function keys is not operating.

No power.
Digitron don't display or is unstable.

No OSD.
No menu picture in the oscillated.

96.06.27 7-753A

REC AUDIO SIGNAL
PB AUDIO SIGNAL
IF SIGNAL
VIDEO SIGNAL

AUDIO OPTION TABLE

C/N	PRE./CAN.	1,2 SCART	RCA
R404 R420 R424 R425 R428	150 33K 10K 3.3K 10K	150 33K 10K 3.3K 10K	270 OPEN 18K 1.8K 18K
R429 R433 R434 D404 R426	3.3K 10K 12K OPEN OPEN	3.3K 10K 12K 1SS131 4.7K	3.3K SHORT OPEN 1SS131 4.7K
R427 C421 Q528 R403 R432	47K OPEN KRC103M(FOR S) 15K 15K	4.7K 0.1/50 OPEN 15k 15K	4.7K 0.1/50 OPEN 4.7k 4.7K
R415 C412 C413 C720 W181	33K 0.01u(CJ) 0.018u(CQ) OPEN TIN WIRE	33K 0.01(CJ) 0.018(CQ) TIN WIRE OPEN	18K 0.022(CQ) 0.012(CQ) 470u/16V OPEN
WRCA1 WRCA2 R411 R430 ZD701	OPEN OPEN 1.5K 39K OPEN	OPEN OPEN 1.5K 39K OPEN	TIN WIRE TIN WIRE 680 15K MTZ7.5B
R718 R719 C423 JUMP WIRE W497	OPEN OPEN OPEN OPEN TIN WIRE	OPEN OPEN OPEN OPEN TIN WIRE	75 68 0.1(CJ) J1-J2 OPEN
JK701 C740 C718 C719 C713	OPEN OPEN OPEN OPEN OPEN	OPEN OPEN OPEN OPEN OPEN	A/V JACK 47/16(CE) 47/16(CE) 47/16(CE) 0.01(CJ)
L706 IC702 W538	OPEN OPEN TIN WIRE	OPEN OPEN OPEN	100uH GL3816 OPEN

R709 12K : AIWA HP ONLY
R419 120 : FOR 1 ONLY
R586 82 : FOR 1 ONLY
C716 4.7µ : AIWA HP ONLY

LOCATION GUIDE

B501	V4
B502	U7
B503	Q14
B504	M13
C401	Q13
C402	Q13
C403	Q12
C404	Q12
C405	Q9
C406	R10
C407	R10
C408	R10
C409	S10
C410	S11
C411	T11
C412	S11
C413	S11
C414	R11
C415	R12
C416	S12
C417	S12
C418	S12
C419	S13
C421	Q10
C422	T12
C423	G12
C500	J3
C501	K3
C502	S5
C503	P4
C504	P4
C505	N5
C506	N6
C507	K5
C508	Q14
C509	R6
C510	I3
C511	N8
C512	C7
C513	E7
C514	N8
C515	N8
C516	N6
C517	N6
C518	N6
C519	N6
C520	Q6
C521	Q6
C522	L13
C523	K5
C524	T8
C525	K5
C526	K5
C528	S9
C529	V11
C530	S8
C531	O8
C532	Q6
C533	U12
C534	M6
C535	L5
C536	F5
C537	F5
C538	E4
C539	E3
C540	C6
C541	M5
C542	H7
C543	E7
C544	H8
C545	S7
C546	K13
C547	T7
C549	D6
C550	J8
C551	D8
C552	G5
C553	G8
C554	O3
C555	P3
C556	L5
C557	R5
C558	S6
C559	R6
C560	U7
C561	D5
C562	G11
C564	T14
C565	L5
C566	O14
C567	O14
C568	P14
C569	U9
C570	U9
C571	U3
C572	R3
C573	V3
C574	H8
C575	G7
C576	G7
C577	V5
C578	G3
C580	J3
C582	L13
C588	P10
C590	R6
C592	R15
C593	R15
C594	N7
C595	N15
C596	T15
C597	K12
C598	I3
C599	I3
C5K1	M3
C5K2	M3
C5X3	F8
C701	C14
C702	C14
C703	D13
C704	D13
C705	F13
C706	F13
C707	E13
C708	E13
C709	E13
C710	F11
C711	D11
C712	E11
C713	D9
C714	E11

C715	E11
C716	E14
C717	G14
C718	F9
C719	D9
C720	K14
C721	H10
C722	G10
C723	G9
C724	C12
C725	F11
C726	I9
C740	D9
C741	J8
C742	G12
D401	G11
D402	G11
D403	G11
D404	Q10
D405	Q11
D500	S3
D501	N4
D502	J7
D503	J7
D504	Q14
D505	J3
D506	P14
D507	F6
D508	F5
D509	I10
D511	T8
D512	U4
D513	U4
D514	S14
D515	Q15
D516	H3
D704	E11
FR501	V5
FR502	V5
IC401	R11
IC501	L8
IC502	S9
IC503	J12
IC504	I5
IC505	G8
IC506	N10
IC701	E11
IC702	E10
JK701	H15
L401	Q10
L402	S11
L403	T13
L501	J4
L505	P4
L506	M6
L508	T8
L510	Q6
L512	L14
L513	P3
L514	R6
L515	L13
L516	R7
L701	C14
L702	D14
L703	D11
L704	E14
L706	F9
LED501	D3
MK501	L2
PM301	P15
PM302	S15
PM701	B13
PM702	B11
PM703	B10
PM901	L15
PM902	J15
PMD01	B6
PMD02	B8
PMD03	V13
PMD04	B5
PMD05	B4
PMP01	V6
Q401	R13
Q402	P13
Q403	P9
Q404	Q9
Q405	R10
Q406	F11
Q407	O12
Q408	P12
Q501	V10
Q502	P7
Q503	F4
Q504	F3
Q506	T7
Q507	P6
Q508	L13
Q509	L14
Q510	K13
Q511	K13
Q512	S7
Q513	V8
Q514	S5
Q515	T6
Q522	T6
Q523	T5
Q524	V8
Q525	O7
Q526	P6
Q528	P11
Q530	P14
Q701	F13
Q702	G9
Q703	H10
Q704	H9
R401	P13
R402	Q12
R403	Q12
R404	Q13
R405	Q12
R406	Q8
R407	Q8
R408	R10
R409	R10
R410	R10
R411	S11
R412	S12
R413	S12
R414	S12
R415	S12
R416	S12

R417	P12
R418	F11
R419	G11
R420	R11
R421	Q13
R423	R13
R424	Q11
R425	Q10
R426	Q10
R427	Q10
R428	P9
R429	P9
R430	Q12
R431	T12
R432	S11
R433	I14
R434	I13
R500	M4
R501	M4
R502	U7
R503	J10
R504	V6
R505	Q6
R506	K9
R507	K10
R508	K10
R509	K10
R510	K10
R511	K10
R512	K10
R513	I4
R514	V6
R515	N9
R516	T6
R518	P11
R519	N6
R521	T14
R523	L5
R524	T8
R525	S8
R526	S8
R527	K12
R528	H7
R529	L12
R530	G8
R531	D8
R532	E8
R533	E7
R534	I10
R535	F7
R536	M13
R537	L5
R538	P14
R539	P15
R540	H5
R541	K5
R542	M13
R543	T5
R544	S5
R545	G4
R546	G6
R547	N9
R548	G5
R549	G4
R551	D4
R552	D5
R554	J8
R555	D4
R556	E5
R557	E4
R558	E3
R559	F4
R560	F5
R561	U11
R562	U11
R563	U12
R564	E5
R565	M6
R566	E8
R567	L5
R568	K5
R569	H8
R570	N9
R571	F7
R572	G7
R573	Q15
R574	Q15
R575	P7
R576	Q14
R577	S6
R578	R6
R579	R6
R580	C5
R581	C5
R582	K13
R583	L13
R584	K14
R585	L13
R586	S5
R587	S5
R588	T7
R589	R5
R590	U9
R591	C5
R592	E8
R593	C5
R594	C4
R595	O14
R596	O14
R597	P14
R598	L5
R599	C5
R5A2	Q7
R5A3	T6
R5A4	T5
R5A5	F8
R5A6	F7
R5A7	K5
R5A9	F7
R5B1	V6
R5B2	T6
R5B3	G13
R5B4	D3
R5C1	O6
R5C2	N6
R5C3	F7
R5C4	E7
R5C5	K12
R5C6	K12
R5C7	E8

R5C8	F7
R5X1	S8
R5X2	T8
R5X3	C4
R5X4	D5
R5X5	D4
R5X6	R6
R5X7	H8
R5X8	M11
R5X9	P14
R701	F14
R702	D12
R703	C12
R704	G13
R705	F13
R706	F13
R707	E13
R708	E13
R709	F13
R710	H9
R711	H9
R712	E11
R716	H10
R717	G9
R718	H15
R719	H15
R720	G9
R721	F10
R722	E13
R726	H10
S501	E6
S502	E5
S503	E4
S504	E3
SW501	G4
SW502	G5
SW701	B14
T401	S11
TP503	L12
TU701	C15
VR401	S11
VR501	I8
VR502	E7
VR701	C11
W105	S13
W106	S13
W181	J13
W278	J9
W309	N7
W322	T14
W323	J9
W350	N5
W508	G7
W536	C9
W537	G7

W550	R6
W555	O5
W5A1	E7
WRCA1	I14
WRCA2	J14
X501	O9
X502	N8
X503	M6
ZD501	R8
ZD502	V7
ZD503	V9
ZD504	T7
ZD505	U5
ZD5S1	E5
ZD5S2	E5
ZD701	I15
ZD702	F11